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To: [Bury, Carolyn](#)
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Subject: Legacy Site Services - East Plant Area 17 Quarterly Monitoring Report - Q3 2014 ~COR-018224-03~
Date: Monday, September 15, 2014 1:57:35 PM
Attachments: [018224 - Area 17 Quarterly Monitoring Report - Q3 2014.pdf](#)

Ms. Bury,

On behalf of Legacy Site Services LLC, agent of Arkema, please find the attached Area 17 Quarterly Monitoring Report for the third quarter of 2014. A hard copy of the report will follow by mail.

Regards,

Pete Swanson

Pete Swanson, P.E.
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September 15, 2014

Reference No. 018224-03

Ms. Carolyn Bury
U.S. EPA Region 5
LU-9J
77 West Jackson Blvd.
Chicago, IL 60604-3507

Dear Ms. Bury:

Re: Quarterly Monitoring Report – Third Quarter 2014
Halowax Area (Area 17) Interim Remedial Measure
Arkema - East Plant
Wyandotte, Michigan

1.0 Introduction

On behalf of Legacy Site Services, LLC (LSS), Agent for Arkema Inc., Conestoga-Rovers & Associates, Inc. (CRA) has prepared this Halowax Area (Area 17) Interim Remedial Measure (IRM) Quarterly Monitoring Report in accordance with the United States Environmental Protection Agency (U.S. EPA)-approved Area 17 Quarterly Monitoring Plan (QMP), dated December 20, 2013.

In accordance with the approved QMP, 2014 quarterly events include hydraulic/DNAPL monitoring of eight shallow monitoring wells (IRM-MW-1, IRM-MW-2, IRM-MW-3, MW009, MW010A, MW011, MW016 and MW025) and sampling of six monitoring wells (IRM-MW-1, IRM-MW-2, IRM-MW-3, MW010A, MW016 and MW025). Refer to Figure 1 for the location of monitoring wells. Following the first year of sampling, the number of wells and frequency of sampling will be re-evaluated and, if warranted, modifications to the network and sampling frequency will be proposed.

The objective of quarterly sampling is to supplement the conclusions presented in the May 2010 Corrective measures Study (CMS) Report which indicates that the current Area 17 IRM effectively contains, captures, recovers and treats (or disposes) impacted groundwater and DNAPL prior to migration to the Trenton Channel. To achieve this objective, select monitoring wells throughout Area 17 are to be sampled and gauged on a quarterly basis to evaluate groundwater flow direction, DNAPL presence/thickness and dissolved constituent concentrations.

In accordance with the approved QMP, the remaining sections of this report are presented as follows:

- Section 2.0 - Field Activities
- Section 3.0 - Laboratory Analysis and Data Validation
- Section 4.0 - Groundwater Analytical Results
- Section 5.0 - Summary and Conclusions

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2

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2.0 Field Activities

2.1 Fluid (Groundwater and DNAPL) Level Monitoring

To start the event, static water levels (using an Oil/Water Interface Probe) were collected from all existing shallow monitoring wells in and near Area 17 to define flow conditions and investigate the presence of DNAPL. These wells included IRM-MW-1, IRM-MW-2, IRM-MW-3, MW009, MW010A, MW011, MW016, and MW025, as depicted on Figure 1. Monitoring wells MW017 and MW022, shown on Figure 1, are damaged and were not sampled as part of this event.

Prior to collection of measurements, monitoring well caps were removed and time was given to promote water table equalization. The elevation of the Trenton Channel was also obtained from the National Oceanic and Atmospheric Administration (NOAA) Wyandotte River Gauging Station (http://glakesonline.nos.noaa.gov/glin.shtml?station_info=9044030+Wyandotte+MI).

Fluid levels collected as part of this activity are summarized in the following table:

Well ID	TOC Elevation	Water Level (ft btoc)	Depth to DNAPL (ft btoc)	TOS (ft btoc)	BOS (ft btoc)	BOW (ft btoc)	Water Elev.	DNAPL Elev.	DNAPL Thickness (ft)
IRM-MW-1	580.02	6.72	ND	12.25	17.25	22.25	573.30	ND	NA
IRM-MW-2	579.57	5.62	17.60	11.52	16.52	21.52	573.95	561.97	3.92
IRM-MW-3	579.30	5.59	ND	11.31	16.31	21.31	573.71	ND	NA
MW009	579.57	6.31	8.48	11.14	16.14	16.14	573.26	571.09	7.66
MW010a	579.76	7.50	ND	6.52	11.52	11.52	573.26	ND	NA
MW011	580.66	7.42	ND	5.17	10.17	10.17	573.24	ND	NA
MW016	579.29	5.84	ND	17.25	22.25	22.25	573.45	ND	NA
MW025	581.11	7.14	ND	16.91	21.91	21.91	573.97	ND	NA
Surface Water ⁽¹⁾	NA	NA	NA	NA	NA	NA	574.11	NA	NA

Table Notes:

Elevation Datum - NAVD 88

TOC - Top of casing

ft btoc - feet below top of casing

NA - Not Applicable

TOS - approximate top of screen (feet below top of casing) based on field measurement with oil/water interface probe

BOS - approximate bottom of screen (feet below top of casing) based on field measurement with oil/water interface probe

BOW - approximate bottom of well (feet below top of casing) based on field measurement with oil/water interface probe

(1) - Based on Wyandotte, MI station reading at 9:30 A.M. on 7/24/14; converted from IGLD 85 to NAVD 88 elevation using -0.265ft conversion factor. Elevation is approximate.



September 15, 2014

3

Reference No. 018224-03

Data presented in the table were used to develop groundwater flow contours and to document DNAPL conditions. As shown on Figure 1, groundwater was found to flow in a westerly direction (opposite of previous events) near the river (east of MW010A). The observed inward gradient (i.e., flow from the Trenton Channel to the Site) can be attributed to a currently high river elevation (i.e., seasonal variation). The surface water elevation of the Trenton Channel has steadily risen since the first quarter of 2014. As shown on Figure 1, groundwater flow trends easterly at locations west of MW010A.

As shown in the above table, DNAPL was encountered in IRM-MW-2 and MW009 only. This is consistent with previous gauging events (DNAPL has only been observed in these two wells since initiation of RCRA Corrective Action Activities). MW009 showed an increase in DNAPL thickness for the second consecutive quarter, which may be the result of quarterly removal efforts creating improved communication between the well screen and the shallow aquifer. The DNAPL thickness in IRM-MW-2 remained relatively stable between the April and July sampling events.

2.2 DNAPL Recovery

As part of this event, CRA extracted recoverable DNAPL from IRM-MW-2 and MW009; a total of 1 gallon was recovered during the effort and placed in DNAPL waste drums which are staged adjacent to treatment system building. DNAPL will be properly disposed along with other Area 17 groundwater treatment system O&M waste.

2.3 Monitoring Well Sampling

Sampling of the monitoring well network was completed in accordance with CRA's Field Method Guidelines (FMGs) for Groundwater Sample Purgung and Collection Procedures. Tubing used for sampling was dedicated to each monitoring well to prevent potential cross-contamination, to eliminate decontamination of tubing and to facilitate follow-up sampling rounds. All water generated during well purging efforts was processed through the Area 17 groundwater treatment system.

During sampling, the water level and pumping rates were recorded every 3 to 5 minutes (or less, depending on the recharge rate of the monitoring well) and the groundwater was monitored with a flow-through cell for field parameters including dissolved oxygen (DO), oxidation reduction potential (ORP), pH, specific conductance, turbidity, and temperature. After the field parameters stabilized, groundwater samples were collected using laboratory-supplied glass containers, starting with VOCs. Field quality control samples were also collected during the sampling event and consisted of one trip blank, one duplicate and one matrix spike/matrix spike duplicate (MS/MSD). Upon collection, samples were immediately placed in a cooler on ice for shipment to the analytical laboratory under chain-of-custody (COC) protocol. Refer to Attachment A for copies of Low Flow Purging Forms and Table 1 for a Sample Key.



3.0 Laboratory Analysis and Data Validation

Groundwater samples collected for chemical analysis were submitted to TestAmerica Laboratories under COC protocol and all samples were analyzed under standard turn-around time (2 weeks) for Target Compound List (TCL) volatile organic compounds (VOCs) by SW846, Method 8260; TCL semi-volatile organic compounds (SVOCs) by SW846, Method 8270; and chromium and lead by SW846, Method 6010.

Quality Assurance/Quality Control (QA/QC) procedures were conducted by the laboratory during sample analyses. A review of the analytical data package was also performed to validate results and to determine usability. This validation was performed by project chemists experienced in laboratory methods and validation procedures, and did not include those persons directly involved with the analyses. The data validation was performed in general accordance with criteria established in federal guidelines. Refer to Attachment B for a memorandum describing Data Quality Assessment and Validation.

4.0 Groundwater Analytical Results

Results of the groundwater analyses are provided in the laboratory analytical reports contained in Attachment C and are summarized in Table 2. Analytical results presented in Table 2 are compared to Michigan Act 451, Part 201 Generic Nonresidential Cleanup Criteria (GNRCC). As shown (and consistent with the Q1 and Q2 2014 sampling events) various constituents were detected above GRCC (criteria protective of the drinking water pathway or the groundwater-surface water interface [GSI], depending on the constituent) in IRM-MW-1, IRM-MW-2, IRM-MW-3 and MW010A. However, drinking water exceedances are mitigated through implementation of a restrictive covenant, which prohibits use of groundwater for drinking water purposes. With respect to the GSI exceedances, whether the flow is easterly (as in Q1 and Q2) or westerly (as in Q3) the wells with exceedances are located such that detected constituents, if mobile, would migrate toward and be captured by the containment wall (as observed during Q1 and Q2), or away from the surface water (Q3), thereby mitigating exceedances. As such, the drinking water and GSI pathways are not complete for those wells and the associated exceedances do not present unacceptable exposures.

Similar to the Q1 and Q2 2014 sampling events, no constituents were detected above applicable criteria in MW016. Additionally, with the exception of chlorobenzene (0.029 mg/l), slightly above GSI criteria (0.025 mg/l), no constituents were detected in MW025 at concentrations above applicable GNRCC.



September 15, 2014

5

Reference No. 018224-03

5.0 Summary and Conclusions

CRA conducted Q3 2014 monitoring of the Area 17 IRM in accordance with the U.S. EPA-approved QMP, dated December 20, 2013. Activities included hydraulic/DNAPL monitoring of eight shallow monitoring wells (IRM-MW-1, IRM-MW-2, IRM-MW-3, MW009, MW010A, MW011, MW016 and MW025) and sampling of six shallow monitoring wells (IRM-MW-1, IRM-MW-2, IRM-MW-3, MW010A, MW016 and MW025) to evaluate groundwater flow direction, DNAPL presence/thickness and dissolved constituent concentrations.

As identified herein, groundwater was found to flow in a westerly direction (opposite of Q1 and Q2 events) near the river (east of MW010A). The observed near river groundwater flow direction can be attributed to seasonal variation in the aquifer. Groundwater flow direction will be monitored during the Q4 sampling event to further evaluate seasonal variations in groundwater flow.

DNAPL was encountered in IRM-MW-2 and MW009 only. This is consistent with previous gauging events and provides evidence that the DNAPL plume is stable (i.e., does not appear to be mobile or migrating). Cross-sectional diagrams were updated during preparation of the Quarterly Monitoring Report to reflect field measured groundwater and DNAPL depths. Figures 2, 3 and 4 present cross-sectional diagrams of the Area 17 hydrogeologic profile, which show an easterly sloping clay layer. This provides evidence that, if present, mobile and migrating, DNAPL would flow along the top of the clay layer (dipping to the east – toward the containment wall) and be contained.

Results of the groundwater analyses show that various constituents were detected in IRM-MW-1, IRM-MW-2, IRM-MW-3 and MW010A. However, based on their location and institutional controls in place at the Site, the constituents do not present the potential for unacceptable exposures.

No constituents were detected above applicable GNRCC in MW016. Additionally, with the exception of chlorobenzene (0.029 mg/l), slightly above GSI criteria (0.025 mg/l), no constituents were detected in MW025 at concentrations above GNRCC. The 0.029 mg/l concentration of chlorobenzene detected in MW025 is consistent from the Q2 2014 event when chlorobenzene was detected at 0.028 mg/l.



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& ASSOCIATES**

September 15, 2014

6

Reference No. 018224-03

We trust that this report satisfies your requirements at this time. If you should have any questions or comments or require further clarification, please contact Mr. Michael Pinto at (610) 594-4435.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

A handwritten signature in blue ink that reads "Peter S. Swanson".

Peter S. Swanson, P.E.

DC/pss/ds/4/Det.

Encls:

- Figure 1 - Site Layout and Groundwater Contours
- Figure 2 - Cross-Section Location Map
- Figure 3 - Cross-Section A-A'
- Figure 4 - Cross-Section B-B'
- Table 1 - Sample Key
- Table 2 - Summary of Groundwater Analytical Results
- Attachment A - Low Flow Purging Forms
- Attachment B - Data Quality Assessment and Validation Memorandum
- Attachment C - Laboratory Analytical Reports

cc:

- Michael Pinto, LSS
- Laura Verona, MDEQ
- Peter Quackenbush, MDEQ
- Joanne West, Union Carbide
- Michael Bollinger, Beazer East
- Dave Canfield, CRA

Figures

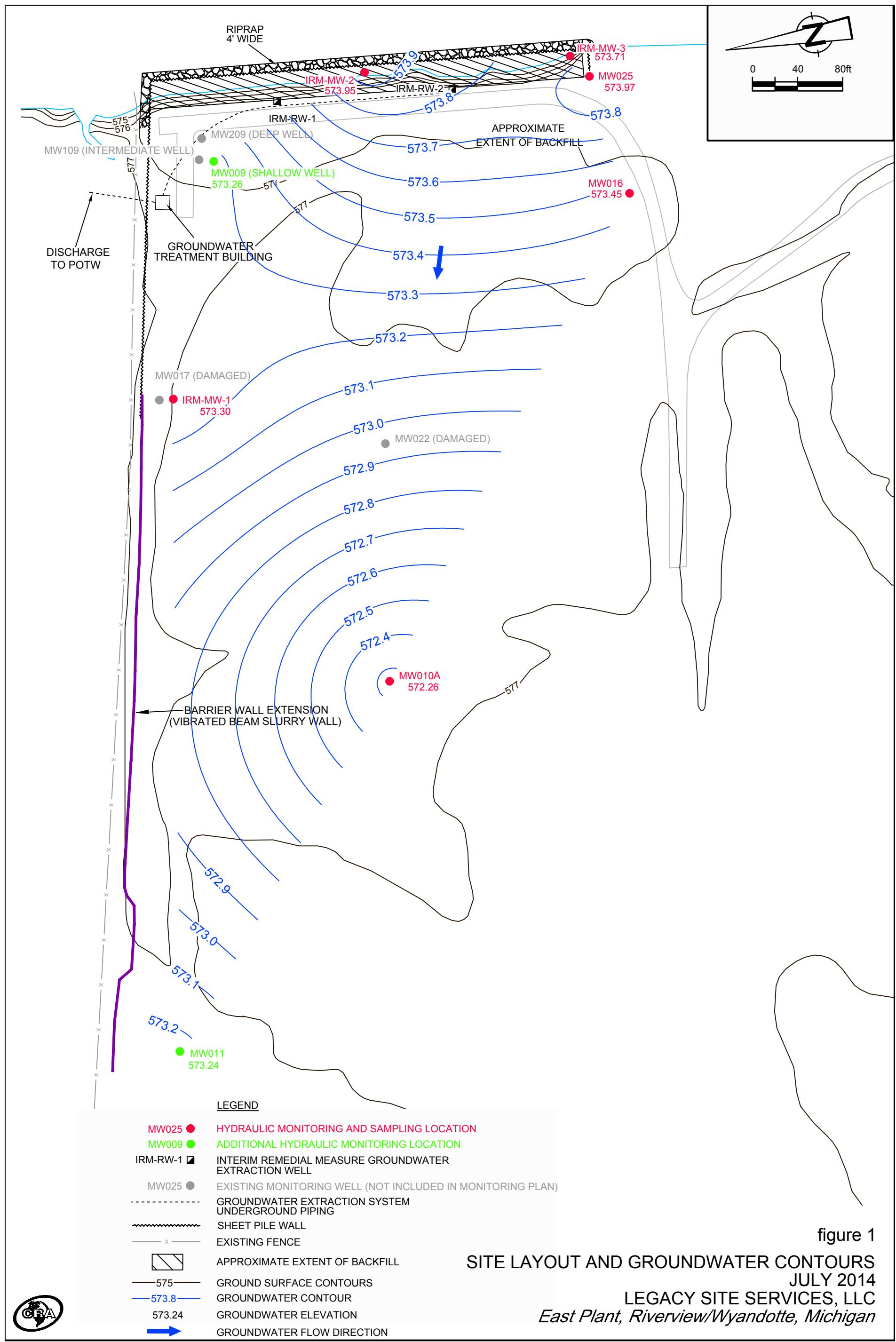
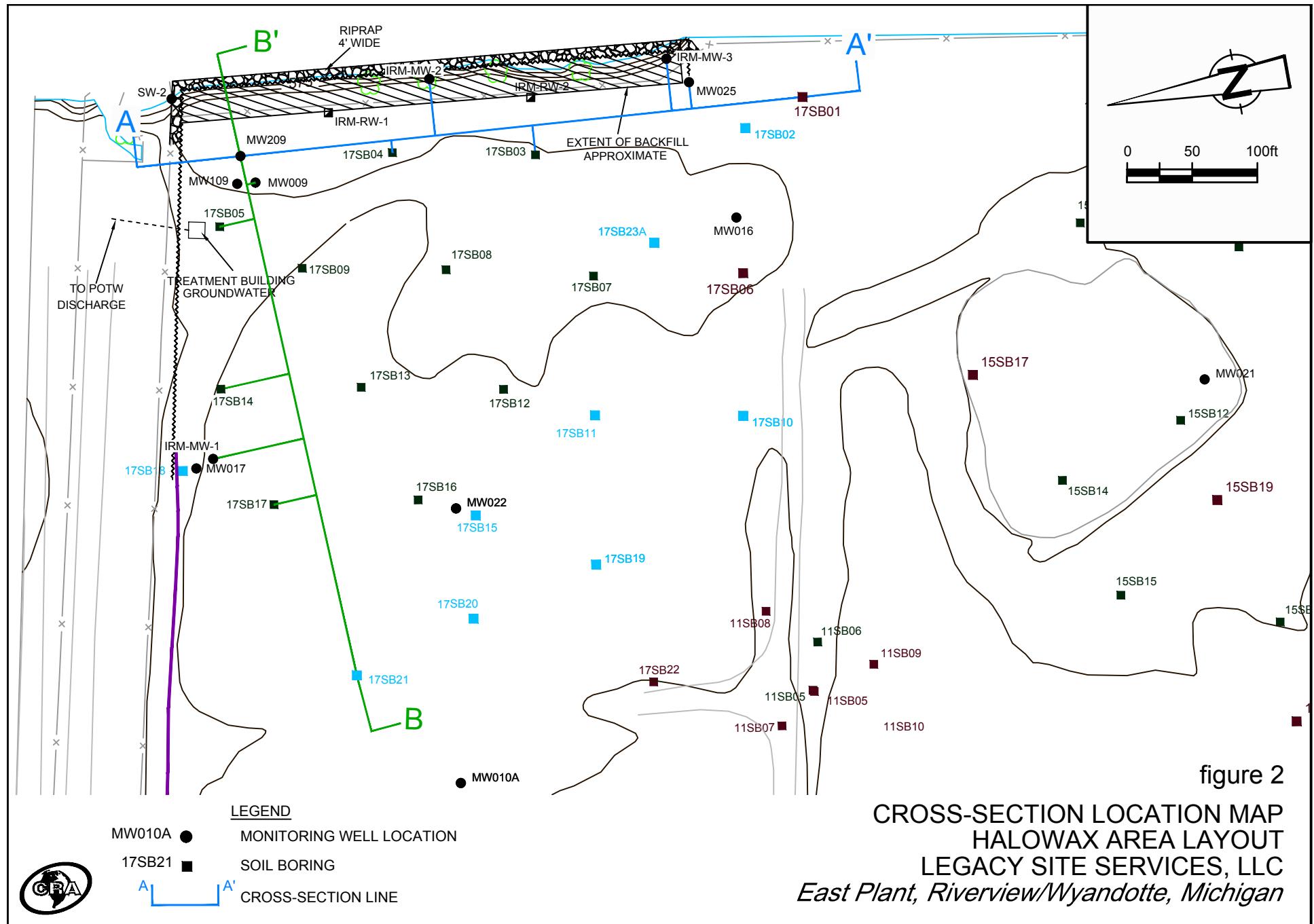
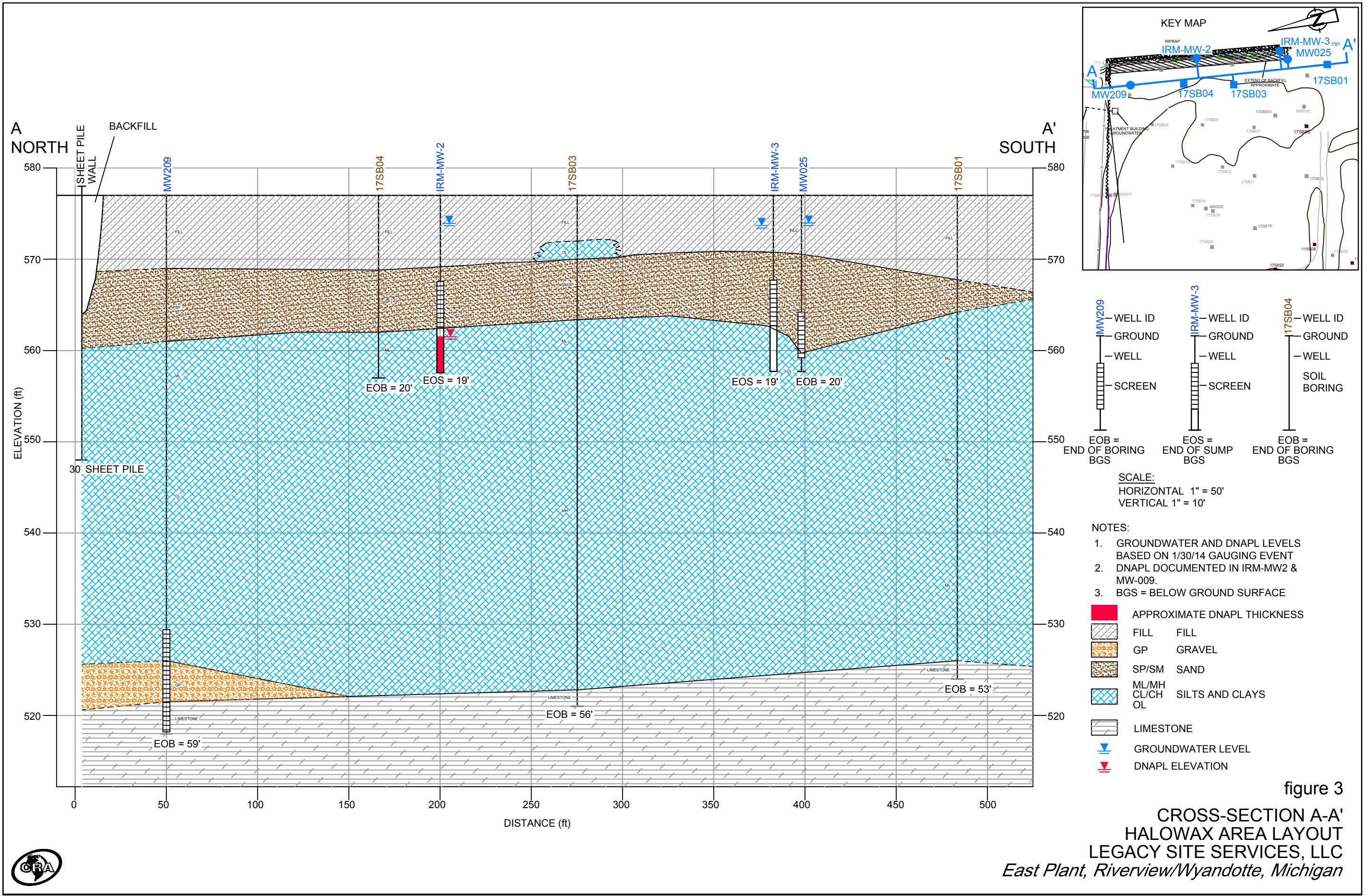
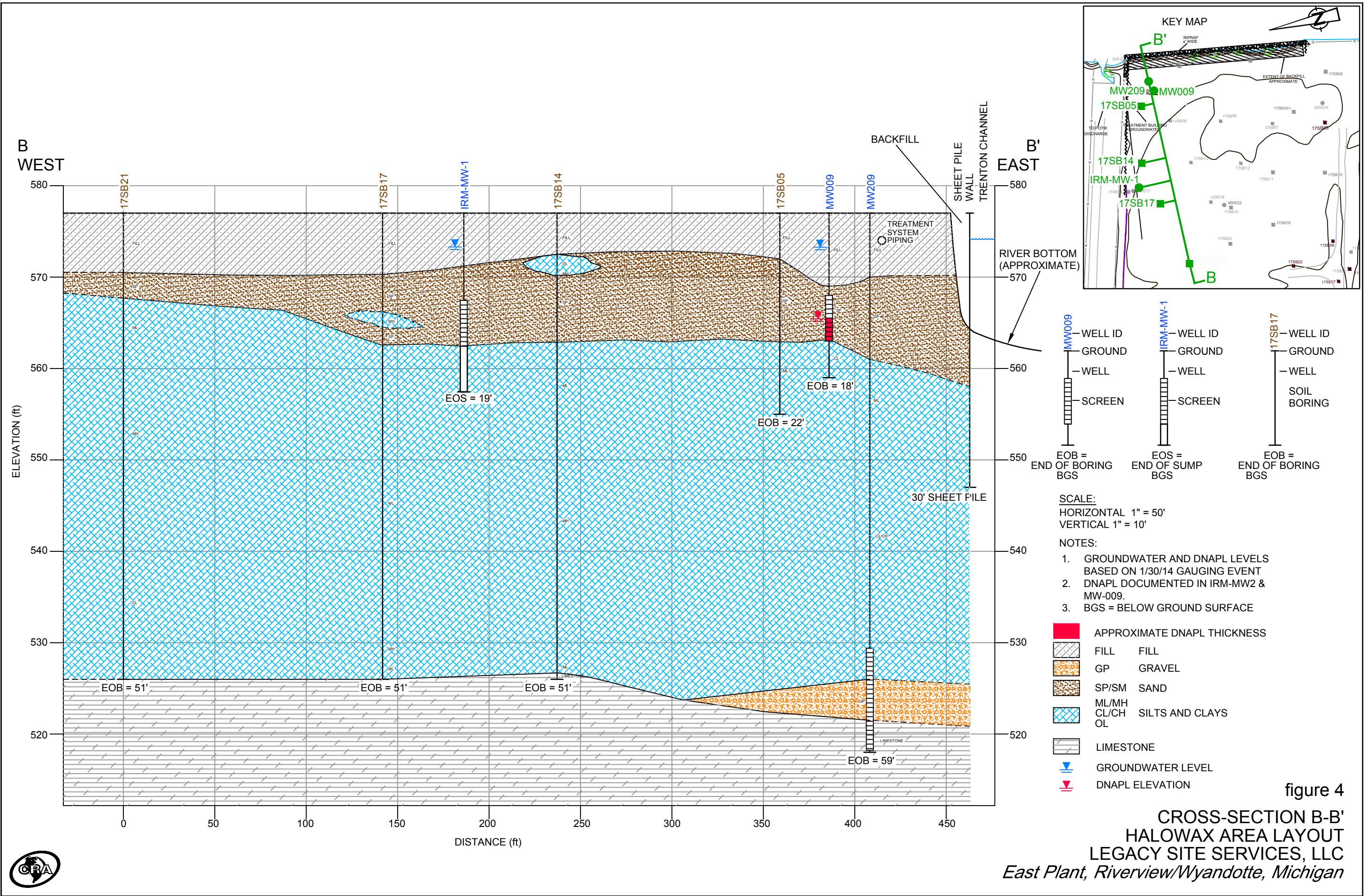


figure 1
SITE LAYOUT AND GROUNDWATER CONTOURS
JULY 2014
LEGACY SITE SERVICES, LLC
East Plant, Riverview/Wyandotte, Michigan







Tables

TABLE 1
GROUNDWATER SAMPLE KEY
JULY 2014 QUARTERLY SAMPLING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE, MICHIGAN

Sample Identification	Sample Location	Date	QA/QC	Analysis
GW-18224-072414-SR-001	IRM-MW-1	7/24/2014		VOCs, SVOCs, Pb, Cr
GW-18224-072414-SR-002	MW010A	7/24/2014		VOCs, SVOCs, Pb, Cr
GW-18224-072414-SR-003	MW016	7/24/2014	MS/MSD	VOCs, SVOCs, Pb, Cr
GW-18224-072414-SR-004	IRM-MW-3	7/24/2014		VOCs, SVOCs, Pb, Cr
GW-18224-072414-SR-005	IRM-MW-3	7/24/2014	Duplicate	VOCs, SVOCs, Pb, Cr
GW-18224-072414-SR-006	MW025	7/24/2014		VOCs, SVOCs, Pb, Cr
GW-18224-072414-SR-007	IRM-MW-2	7/24/2014		VOCs, SVOCs, Pb, Cr
TB-18224-072414	--	7/24/2014	Trip Blank	VOCs

Notes:

VOCs = Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

Pb = Lead

Cr = Chromium

MS/MSD = Matrix Spike/ Matrix Spike Duplicate

QA/QC = Quality Assurance/ Quality Control

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
JULY 2014 QUARTERLY SAMPLING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE, MICHIGAN

Sample Location:	MDEQ Generic Groundwater Cleanup Criteria: Nonresidential⁽¹⁾						IRM-MW-1 001 7/24/2014	IRM-MW-2 007 7/24/2014	IRM-MW-3 004 7/24/2014	IRM-MW-3 005 7/24/2014	MW010A 002 7/24/2014	MW016 003 7/24/2014	MW025 006 7/24/2014	
	Non-Residential Drinking Water	Groundwater Surface Water	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity	Screening Levels								
Sample Identification: GW-18224-072414-SR-	Units	a	b	c	d	e								
Metal⁽²⁾														
Chromium ⁽³⁾	mg/L	0.1	--	NLV	--	ID	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.033	0.0075	
Lead	mg/L	0.004	0.012	NLV	--	ID	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	
Semi-Volatile Organic Compounds (SVOCs)														
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	--	--	--	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U	
2,4,5-Trichlorophenol	mg/L	2.1	--	NLV	1200	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	
2,4,6-Trichlorophenol	mg/L	0.47	0.005	NLV	800	ID	0.0039 U	0.015 U	0.0038 U	0.004 U	0.0038 U	0.0038 U	0.0038 U	
2,4-Dichlorophenol	mg/L	0.21	0.011	NLV	4500	ID	0.0097 U	0.038 U	0.0095 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U	
2,4-Dimethylphenol	mg/L	1	0.38	NLV	7870	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	
2,4-Dinitrophenol	mg/L	--	--	--	--	0.019 U	0.077 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	
2,4-Dinitrotoluene	mg/L	0.032	--	NLV	270	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	
2,6-Dinitrotoluene	mg/L	--	--	--	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U	
2-Chloronaphthalene	mg/L	5.2	--	ID	6.74	ID	0.0049 U	0.032	0.0051	0.0058	0.0048 U	0.0048 U	0.0048 U	
2-Chlorophenol	mg/L	0.13	0.018	ID	22000	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	
2-Methylnaphthalene	mg/L	0.75	0.019	25	24.6	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	
2-Methylphenol	mg/L	1	0.03	NLV	28000	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	
2-Nitroaniline	mg/L	--	--	--	--	0.019 U	0.077 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	
2-Nitrophenol	mg/L	0.058	ID	NLV	2500	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	
3&4-Methylphenol [#]	mg/L	1	0.03	NLV	28000	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.018	0.0048 U	0.0048 U	
3,3'-Dichlorobenzidine	mg/L	0.0043	0.0003	NLV	3.11	ID	0.00097 U	0.0038 U	0.00095 U	0.00099 U	0.00095 U	R	0.00095 U	
3-Nitroaniline	mg/L	--	--	--	--	0.019 U	0.077 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	
4,6-Dinitro-2-methylphenol	mg/L	0.02	--	NLV	200	ID	0.019 U	0.077 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U
4-Bromophenyl phenyl ether	mg/L	--	--	--	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U	
4-Chloro-3-methylphenol	mg/L	0.42	0.0074	NLV	3900	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U
4-Chloroaniline	mg/L	--	--	--	--	0.0097 U	0.038 U	0.0095 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	
4-Chlorophenyl phenyl ether	mg/L	--	--	--	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U	
4-Nitroaniline	mg/L	--	--	--	--	0.019 U	0.077 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	
4-Nitrophenol	mg/L	--	--	--	--	0.019 U	0.077 U	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	
Acenaphthene	mg/L	3.8	0.038	4.2	4.24	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U
Acenaphthylene	mg/L	0.15	ID	3.9	3.93	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U
Acetophenone	mg/L	4.4	--	6100	6100	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U
Anthracene	mg/L	0.043	ID	0.043	0.0434	ID	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U
Atrazine	mg/L	0.003	0.0073	NLV	70	ID	0.0029 U	0.012 U	0.0029 U	0.003 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U
Benzaldehyde	mg/L	--	--	--	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U	
Benzo(a)anthracene	mg/L	0.0085	ID	NLV	0.0094	ID	0.00097 U	0.0038 U	0.00095 U	0.00099 U	0.00095 U	0.00095 U	0.00095 U	0.00095 U
Benzo(a)pyrene	mg/L	0.005	ID	NLV	0.00162	ID	0.00097 U	0.0038 U	0.00095 U	0.00099 U	0.00095 U	0.00095 U	0.00095 U	0.00095 U
Benzo(b)fluoranthene	mg/L	0.0015	ID	ID	0.0015	ID	0.00097 U	0.0038 U	0.00095 U	0.00099 U	0.00095 U	0.00095 U	0.00095 U	0.00095 U
Benzo(g,h,i)perylene	mg/L	0.001	--	NLV	0.00026	ID	0.00097 U	0.0038 U	0.00095 U	0.00099 U	0.00095 U	R	0.00095 U	0.00095 U
Benzo(k)fluoranthene	mg/L	0.001	--	NLV	0.0008	ID	0.00097 U	0.0038 U	0.00095 U	0.00099 U	0.00095 U	0.00095 U	0.00095 U	0.00095 U
Biphenyl (1,1-Biphenyl)	mg/L	--	--	--	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U	
bis(2-Chloroethoxy)methane	mg/L	--	--	--	--	0.0049 U	0.019 U	0.0048 U	0.005 U	0.0048 U	0.0048 U	0.0048 U	0.0048 U	
bis(2-Chloroethyl)ether	mg/L	0.0083	0.001	210	17200	17000	0.00097							

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
JULY 2014 QUARTERLY SAMPLING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE, MICHIGAN

Sample Location:	MDEQ Generic Groundwater Cleanup Criteria: Nonresidential⁽¹⁾						IRM-MW-1 001 7/24/2014	IRM-MW-2 007 7/24/2014	IRM-MW-3 004 7/24/2014	IRM-MW-3 005 7/24/2014	MW01A 002 7/24/2014	MW016 003 7/24/2014	MW025 006 7/24/2014	
	Non-Residential Drinking Water	Groundwater Surface Water	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity	Screening Levels								
Sample Identification: GW-18224-072414-SR-	Units	a	b	c	d	e								
Volatile Organic Compounds (VOC)														
1,1,1-Trichloroethane	mg/L	0.2	0.089	1300	1330	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,1,2,2-Tetrachloroethane	mg/L	0.035	0.078	77	2970	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,1,2-Trichloroethane	mg/L	0.005	0.33	110	4420	--	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,1-Dichloroethane	mg/L	2.5	0.74	2300	5060	380	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,1-Dichloroethene	mg/L	0.007	0.13	1.3	2250	97	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,2,4-Trichlorobenzene	mg/L	0.07	0.099	300	300	--	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	--	1.2	1.23	--	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.0057	15	4200	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,2-Dichlorobenzene	mg/L	0.6	0.013	160	156	--	0.25 U	0.026^b	0.017^b	0.017^b	0.01 U	0.0033 U	0.0028	
1,2-Dichloroethane	mg/L	0.005	0.36	59	8520	2500	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,2-Dichloropropane	mg/L	0.005	0.23	36	2800	550	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
1,3-Dichlorobenzene	mg/L	0.019	0.028	41	111	ID	0.25 U	0.03^b	0.016	0.015	0.01 U	0.0033 U	0.0031	
1,4-Dichlorobenzene	mg/L	0.075	0.017	74	73.8	--	0.25 U	0.16^b	0.028^b	0.027^b	0.01 U	0.0033 U	0.0085	
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	38	2.2	240000	240000	ID	2.5 U	0.17 U	0.08 U	0.067 U	0.1 U	0.033 U	0.02 U	
2-Hexanone	mg/L	2.9	ID	8700	16000	--	2.5 U	0.17 U	0.08 U	0.067 U	0.1 U	0.033 U	0.02 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	5.2	ID	20000	20000	ID	2.5 U	0.17 U	0.08 U	0.067 U	0.1 U	0.033 U	0.02 U	
Acetone	mg/L	2.1	1.7	1000000	1000000	15000	2.5 U	0.17 U	0.08 U	0.067 U	0.1 U	0.033 U	0.02 U	
Benzene	mg/L	0.005	0.2	35	1750	68	0.25 U	0.19^a	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Bromodichloromethane	mg/L	0.08	ID	37	6740	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Bromoform	mg/L	0.08	ID	3100	3100	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Bromomethane (Methyl bromide)	mg/L	0.029	0.035	9	14500	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Carbon disulfide	mg/L	2.3	ID	550	1190	13	1.3 U	0.083 U	0.04 U	0.033 U	0.05 U	0.017 U	0.01 U	
Carbon tetrachloride	mg/L	0.005	0.045	2.4	793	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Chlorobenzene	mg/L	0.1	0.025	470	472	160	0.25 U	0.47^b	0.19^b	0.17^{ab}	0.01 U	0.0033 U	0.029^b	
Chloroethane	mg/L	1.7	1.1	5700	5740	110	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.1	0.002 U	
Chloroform (Trichloromethane)	mg/L	0.08	0.35	180	7920	ID	3.1^{ab}	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Chloromethane (Methyl chloride)	mg/L	1.1	ID	45	6340	36	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
cis-1,2-Dichloroethene	mg/L	0.07	0.62	210	3500	530	0.25 U	0.017 U	0.008 U	0.0067 U	0.29^a	0.0033 U	0.002 U	
cis-1,3-Dichloropropene	mg/L	--	--	--	--	--	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Cyclohexane	mg/L	--	--	--	--	--	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Dibromochloromethane	mg/L	0.08	ID	110	2600	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Dichlorodifluoromethane (CFC-12)	mg/L	4.8	ID	300	300	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Ethylbenzene	mg/L	0.074	0.018	170	169	43	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Isopropyl benzene	mg/L	2.3	0.028	56	56	29	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Methyl acetate	mg/L	--	--	--	--	--	2.5 U	0.17 U	0.08 U	0.067 U	0.1 U	0.033 U	0.02 U	
Methyl cyclohexane	mg/L	--	--	--	--	--	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Methyl tert butyl ether (MTBE)	mg/L	0.04	7.1	47000	46800	ID	0.25 U	1.7^{ab}	0.083 U	0.04 U	0.033 U	0.05 U	0.0033 U	0.002 U
Methylene chloride	mg/L	0.005	1.5	1400	17000	ID	0.17^a	0.017 U	0.008 U	0.0067 U	0.01 U	0.017 U	0.01 U	0.002 U
Styrene	mg/L	0.1	0.08	310	310	140	0.25 U	0.017 U	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
Tetrachloroethene	mg/L	0.005	0.06	170	200	ID	0.25 U	0.017 U	0.008 U	0.0067 U	0.056^a	0.0033 U	0.002 U	
Toluene	mg/L	0.79	0.27	530	526	61	0.25 U	0.094	0.008 U	0.0067 U	0.01 U	0.0033 U	0.002 U	
trans														

Attachment A

Low-Flow Purging Record Forms

MONITORING WELL RECORD FOR LOW-FLOW PURGING

GW-18224-072414-SR-001

Project Data:

Project Name: ARKEMA - HALOWAX AREA
 Ref. No.: 18224

Date: THURSDAY, JULY 24, 2014
 Personnel: STEVE RAPAI

Monitoring Well Data:

Well No.: MW-1

Vapour PID (ppm): _____

Saturated Screen Length (m/ft): _____

Measurement Point: _____

Depth to Pump Intake (m/ft)⁽¹⁾: _____

Constructed Well Depth (m/ft): _____

Well Diameter, D (cm/in): _____

Measured Well Depth (m/ft): _____

Well Screen Volume, V_s (L)⁽²⁾: _____

Depth of Sediment (m/ft): _____

Initial Depth to Water (m/ft): 6.72

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
			<u>6.72</u>								
0915	100	<u>7.72</u>	-								
0945	100	<u>6.78</u>	<u>0.6</u>	14.93	2.30	5.86	0.78	6.39	132		
0955	100	<u>6.79</u>	<u>0.7</u>	15.23	2.28	1.77	0.49	6.41	134		
1000	100	<u>6.80</u>	<u>0.8</u>	15.44	2.27	1.54	0.44	6.44	133		
1005	100	<u>6.80</u>	<u>0.8</u>	15.47	2.27	1.09	0.43	6.45	133		
1010	100	<u>6.80</u>	<u>0.8</u>	15.39	2.28	1.02	0.40	6.46	130		
1015	100	<u>6.80</u>	<u>0.8</u>	15.50	2.27	0.96	0.40	6.47	130		
1020	100	<u>6.80</u>	<u>0.8</u>	15.49	2.27	0.93	0.39	6.47	130		
1025	100	<u>6.80</u>	<u>0.8</u>	15.49	2.27	0.91	0.40	6.48	130		

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi^*(r^4)*L$ in mL, where r ($r=D/2$) and L are in cm.
For Imperial units, $V_s = \pi^*(r^4)*L^*$ (2.54)³, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be

Sample ID:

GW-18224-072414-SR-001

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Arkeny Hobbs Ave
 Ref. No.: 0182241

Date: 7/21/11
 Personnel: D. Canfield

Monitoring Well Data:

Well No.: IRM-MW2
 Vapour PID (ppm): _____
 Measurement Point: _____
 Constructed Well Depth (m/ft): _____
 Measured Well Depth (m/ft): _____
 Depth of Sediment (m/ft): _____

Saturated Screen Length (m/ft): _____
 Depth to Pump Intake (m/ft)⁽¹⁾: _____
 Well Diameter, D (cm/in): _____
 Well Screen Volume, V_s (L)⁽²⁾: _____
 Initial Depth to Water (m/ft): 5.6

Sta: 150

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
	Precision Required ⁽⁵⁾ :		±3 %		±0.005 or 0.01 ⁽⁶⁾		±10 %		±0.1 Units		
14:30	180	5.60		20.6	3.37	7.26	0.50	8.39	-240		
14:45	100			20.74	3.18	8.61	0.32	7.82	-274		
14:50	100			21.64	3.54	10.3	0.30	7.67	-232		
15:00				21.39	3.16	8.62	0.27	7.59	-232		
15:05				21.27	3.11	8.04	0.26	7.53	-232		
15:10				21.20	3.05	8.70	0.26	7.50	-232		
15:15				21.26	3.00	6.55	0.25	7.51	-232		
15:20				21.26	2.93	5.96	0.24	7.40	-231		
15:25				21.20	2.89	5.41	0.23	7.39	-230		
15:30				21.22	2.85	7.78	0.22	7.42	-231		
15:35				21.29	2.82	7.75	0.22	7.42	-230		
15:55				21.25	2.67	7.80	0.21	7.34	-227		
	Simpl										

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r ($r=D/2$) and L are in cm. For Imperial units, $V_s = \pi * (r^2) * L$ (2.54)³, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be

Sample ID:

64-18224-0724 M-SR-007

MONITORING WELL RECORD FOR LOW-FLOW PURGING

GW-18224-072414-SR-004
GW-18224-072414-SR-005

Project Data:

Project Name: ARICEMA-HOLLOWAY AREA
Ref. No.: 18224

Date: JULY 24, 2014
Personnel: STEVE RAPAI

Monitoring Well Data:

Well No.: MW-3 IRM-MW-3

Vapour PID (ppm): _____

Saturated Screen Length (m/ft): _____

Measurement Point: _____

Depth to Pump Intake (m/ft)⁽¹⁾: _____

Constructed Well Depth (m/ft): _____

Well Diameter, D (cm/in): _____

Measured Well Depth (m/ft): _____

Well Screen Volume, V_s (L)⁽²⁾: _____

Depth of Sediment (m/ft): _____

Initial Depth to Water (m/ft): 5.34

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
				Precision Required ⁽⁵⁾ :	±3 %	±0.005 or 0.01 ⁽⁶⁾	±10 %	±10 %	±0.1 Units	±10 mV	
11:25	100	5.35	.01								
1145	100	5.34	.02	20.95	11.86	2.49	0.80	7.28	123		
1200	100	5.36	.02	21.51	11.78	2.04	0.08	7.37	124		
1215	100	5.36	.02	20.95	6.31	1.60	0.13	7.42	126		
1225	100	5.36	.02	20.73	3.36	1.52	0.11	7.37	128		
1235	100	5.36	.02	21.43	2.64	1.44	0.10	7.31	125		
1245	100	5.36	.02	21.55	2.58	1.51	0.08	7.30	124		
1255	100	5.36	.02	20.46	2.55	1.41	0.08	7.31	122		
1305	100	5.36	.02	19.82	3.14	1.41	0.08	7.30	119		
1315	100	5.36	.02	19.84	2.74	1.20	0.06	7.33	118		
1325	100	5.37	.03	19.62	2.68	1.29	0.06	7.32	118		

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r ($r=D/2$) and L are in cm.
For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Arkema Midway Area
Ref. No.: 0182.24

Date: 7/24/14
Personnel: 2 Confirms

Monitoring Well Data:

Well No.: MW-10A

Vapour PID (ppm):

Measurement Point: _____

Constructed Well Depth (m/ft):

Measured Well Depth (m/ft): _____

Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):

Depth to Pump Intake (m/ft)⁽¹⁾:

Well Diameter, D (cm/in):

Well Screen Volume, V_s (L)⁽²⁾:

Initial Depth to Water (m/ft): 35D

Start: 9:25

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
 - (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi^*(r^4)*L$ in mL, where r ($r=D/2$) and L are in meters. For Imperial units, $V_s = \pi^*(r^4)*L^*(2.54)^3$, where r and L are in inches
 - (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
 - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be

Sample ID:

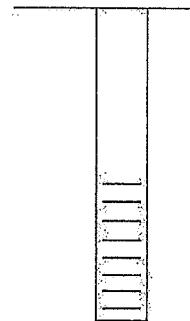
GL-18224-072414-52-002

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Arkema's McLoey Ave
Ref. No.: 0182311

Date: 7/24/14
Personnel: D. C. - F. D. K.



Monitoring Well Data:

Well No.: MW-16

Vapour PID (ppm):

Measurement Point:

Constructed Well Depth (m/ft):

Measured Well Depth (m/ft):

Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):

Depth to Pump Intake (m/ft)⁽¹⁾: _____

Well Diameter, D (cm/in):

Well Screen Volume, V_s (L)⁽²⁾:

Initial Depth to Water (m/ft): 5.84

- Start: 11:00

Notes.

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
 - (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi r^2 L$ in mL, where r ($r=D/2$) and L are in cm. For Imperial units, $V_s = \pi r^2 L^3 (2.54)^3$, where r and L are in inches.
 - (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
 - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be

Snapk ID:

GU-18224-072444 -5R-003

(m_s/m_{sD})

MONITORING WELL RECORD FOR LOW-FLOW PURGING

GW-18224-072414-SR-006

Project Data:

Project Name: ARKEMA - HALOWAX AREA
Ref. No.: 18224Date: JULY 24, 2014
Personnel: STEVE RAPAI

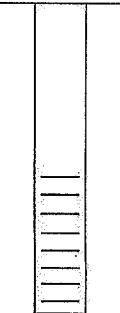
Monitoring Well Data:

Well No.: MW-25

Vapour PID (ppm): _____

Saturated Screen Length (m/ft): _____

Measurement Point: _____

Depth to Pump Intake (m/ft)⁽¹⁾: _____

Constructed Well Depth (m/ft): _____

Well Diameter, D (cm/in): _____

Measured Well Depth (m/ft): _____

Well Screen Volume, V_s (L)⁽²⁾: _____

Depth of Sediment (m/ft): _____

Initial Depth to Water (m/ft): 7.18

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level ⁽³⁾ (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V _p (L)	No. of Well Screen Volumes Purged ⁽⁴⁾
1255	120	7.23	.05								
1340	120	7.23	.05	17.09	10.13	1.37	0.10	7.15	118		
1350	120	7.23	.05	18.16	10.30	1.29	0.04	7.20	112		
1400	120	7.23	.05	17.58	10.16	1.57	0.04	7.24	109		
1410	120	7.23	.05	18.08	9.87	1.34	0.03	7.27	103		
1415	120	7.23	.05	18.07	9.80	1.31	0.03	7.28	102		
1420	120	7.23	.05	18.07	9.80	1.27	0.03	7.28	101		
1425	120	7.23	.05	18.07	9.79	1.11	0.03	7.29	101		

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s = \pi * (r^2) * L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s = \pi * (r^2) * L * (2.54)^3$, where r and L are in inches
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be

Attachment B

Data Quality Assessment and Validation Memorandum



**CONESTOGA-ROVERS
& ASSOCIATES**

14496 Sheldon Road, Suite #200
Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

MEMORANDUM

To: Pete Swanson REF. No.: 018224

FROM: Nancy Bergstrom/tl/15/Det DATE: August 21, 2014

EF 8/21

RE: Analytical Results and Reduced Validation
Quarterly Monitoring Event
Arkema East Plant – Halowax Area
Wyandotte/Riverview, Michigan
July 2014

1.0 Introduction

The following document details a reduced validation of analytical results for groundwater samples collected in support of the Quarterly Monitoring Event at the Arkema East Plant – Halowax Area during July 2014. Samples were submitted to TestAmerica Laboratories, Inc., located in North Canton, Ohio. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard Conestoga-Rovers & Associates (CRA) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS), and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99-008, October 1999
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", USEPA 540/R-94-013, February 1994

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2.0 Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature ($4 \pm 2^\circ \text{ C}$).

3.0 Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4.0 Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) and semivolatile organic compound (SVOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

5.0 Laboratory Control Sample Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Organic Analyses

The LCS contained all compounds of interest. All LCS were within the laboratory control limits, demonstrating acceptable analytical accuracy.

Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6.0 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. Table 4 presents the SVOC data qualified due to outlying MS/MSD results. All remaining percent recoveries and RPD values were within the laboratory control limits or did not warrant qualification, demonstrating acceptable analytical accuracy and precision.

Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

7.0 Field QA/QC Samples

The field QA/QC consisted of one trip blank sample and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank sample was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one time the RL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8.0 Analyte Reporting

The laboratory reported detected results down to the laboratory's report limit (RL) for each analyte. Non-detect results were presented as non-detect at the RL in Table 2.

9.0 Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific exceptions noted herein.

TABLE 1

Page 1 of 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVERVIEW, MICHIGAN
JULY 2014**

<i>Sample Identification</i>	<i>Location</i>	<i>Matrix</i>	<i>Collection Date (mm/dd/yyyy)</i>	<i>Collection Time (hr:min)</i>	<i>Analysis/Parameters</i>			<i>Comments</i>
					TCL VOC	TCL SVOC	Chromium and Lead	
TA-NC SDG No.: 240-39898-1								
GW-18224-072414-SR-001	IRM-MW-1	water	07/24/2014	10:30	X	X	X	
GW-18224-072414-SR-002	MW010A	water	07/24/2014	10:30	X	X	X	
GW-18224-072414-SR-003	MW016	water	07/24/2014	12:15	X	X	X	MS/MSD
GW-18224-072414-SR-004	IRM-MW-3	water	07/24/2014	13:25	X	X	X	
GW-18224-072414-SR-005	IRM-MW-3	water	07/24/2014	13:25	X	X	X	Field duplicate of IRM-MW-3
GW-18224-072414-SR-006	MW025	water	07/24/2014	14:25	X	X	X	
GW-18224-072414-SR-007	IRM-MW-2	water	07/24/2014	15:55	X	X	X	
TB-18224-072414	--	water	07/24/2014	--	X	--	--	Trip Blank

Notes:

- TCL - Target Compound List
- VOC - Volatile Organic Compounds
- SVOC - Semivolatile Organic Compounds
- MS/MSD - Matrix Spike/Matrix Spike Duplicate
- TA-NC - TestAmerica Laboratories, Inc. - North Canton, Ohio
- SDG - Sample Delivery Group

TABLE 2

Page 1 of 15

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014

<i>Sample Location:</i>	<i>IRM-MW-1</i>	<i>IRM-MW-2</i>	<i>IRM-MW-3</i>
<i>Sample Identification:</i>	<i>GW-18224-072414-SR-001</i>	<i>GW-18224-072414-SR-007</i>	<i>GW-18224-072414-SR-004</i>
<i>Sample Date:</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>
<i>Sample Type:</i>	<i>Units</i>		
<i>Metals</i>			
Chromium	mg/L	0.005 U	0.005 U
Lead	mg/L	0.003 U	0.003 U
<i>Semi-Volatile Organic Compounds</i>			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	0.0049 U	0.019 U
2,4,5-Trichlorophenol	mg/L	0.0049 U	0.019 U
2,4,6-Trichlorophenol	mg/L	0.0039 U	0.015 U
2,4-Dichlorophenol	mg/L	0.0097 U	0.038 U
2,4-Dimethylphenol	mg/L	0.0049 U	0.019 U
2,4-Dinitrophenol	mg/L	0.019 U	0.077 U
2,4-Dinitrotoluene	mg/L	0.0049 U	0.019 U
2,6-Dinitrotoluene	mg/L	0.0049 U	0.019 U
2-Chloronaphthalene	mg/L	0.0049 U	0.032
2-Chlorophenol	mg/L	0.0049 U	0.019 U
2-Methylnaphthalene	mg/L	0.0049 U	0.019 U
2-Methylphenol	mg/L	0.0049 U	0.019 U
2-Nitroaniline	mg/L	0.019 U	0.077 U
2-Nitrophenol	mg/L	0.0049 U	0.019 U
3&4-Methylphenol	mg/L	0.0049 U	0.019 U
3,3'-Dichlorobenzidine	mg/L	0.00097 U	0.0038 U
3-Nitroaniline	mg/L	0.019 U	0.077 U
4,6-Dinitro-2-methylphenol	mg/L	0.019 U	0.077 U
4-Bromophenyl phenyl ether	mg/L	0.0049 U	0.019 U
4-Chloro-3-methylphenol	mg/L	0.0049 U	0.019 U
4-Chloroaniline	mg/L	0.0097 U	0.038 U
4-Chlorophenyl phenyl ether	mg/L	0.0049 U	0.019 U
4-Nitroaniline	mg/L	0.019 U	0.077 U
4-Nitrophenol	mg/L	0.019 U	0.077 U

TABLE 2

Page 2 of 15

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014

*Sample Location:**Sample Identification:**Sample Date:**Sample Type:***Semi-Volatile Organic Compounds**

	<i>Units</i>	<i>IRM-MW-1</i> <i>GW-18224-072414-SR-001</i> 7/24/2014	<i>IRM-MW-2</i> <i>GW-18224-072414-SR-007</i> 7/24/2014	<i>IRM-MW-3</i> <i>GW-18224-072414-SR-004</i> 7/24/2014
Acenaphthene	mg/L	0.0049 U	0.019 U	0.0048 U
Acenaphthylene	mg/L	0.0049 U	0.019 U	0.0048 U
Acetophenone	mg/L	0.0049 U	0.019 U	0.0048 U
Anthracene	mg/L	0.0049 U	0.019 U	0.0048 U
Atrazine	mg/L	0.0029 U	0.012 U	0.0029 U
Benzaldehyde	mg/L	0.0049 U	0.019 U	0.0048 U
Benzo(a)anthracene	mg/L	0.00097 U	0.0038 U	0.00095 U
Benzo(a)pyrene	mg/L	0.00097 U	0.0038 U	0.00095 U
Benzo(b)fluoranthene	mg/L	0.00097 U	0.0038 U	0.00095 U
Benzo(g,h,i)perylene	mg/L	0.00097 U	0.0038 U	0.00095 U
Benzo(k)fluoranthene	mg/L	0.00097 U	0.0038 U	0.00095 U
Biphenyl (1,1-Biphenyl)	mg/L	0.0049 U	0.019 U	0.0048 U
bis(2-Chloroethoxy)methane	mg/L	0.0049 U	0.019 U	0.0048 U
bis(2-Chloroethyl)ether	mg/L	0.00097 U	0.0038 U	0.00095 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0049 U	0.019 U	0.0048 U
Butyl benzylphthalate (BBP)	mg/L	0.0049 U	0.019 U	0.0048 U
Caprolactam	mg/L	0.0097 U	0.038 U	0.0095 U
Carbazole	mg/L	0.0097 U	0.038 U	0.0095 U
Chrysene	mg/L	0.00097 U	0.0038 U	0.00095 U
Dibenz(a,h)anthracene	mg/L	0.0019 U	0.0077 U	0.0019 U
Dibenzofuran	mg/L	0.0039 U	0.015 U	0.0038 U
Diethyl phthalate	mg/L	0.0049 U	0.019 U	0.0048 U
Dimethyl phthalate	mg/L	0.0049 U	0.019 U	0.0048 U
Di-n-butylphthalate (DBP)	mg/L	0.0049 U	0.019 U	0.0048 U
Di-n-octyl phthalate (DnOP)	mg/L	0.0049 U	0.019 U	0.0048 U
Fluoranthene	mg/L	0.00097 U	0.0038 U	0.00095 U
Fluorene	mg/L	0.0049 U	0.019 U	0.0048 U
Hexachlorobenzene	mg/L	0.00019 U	0.00077 U	0.00019 U

TABLE 2

**VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014**

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Semi-Volatile Organic Compounds**

	<i>Units</i>	<i>IRM-MW-1</i> <i>GW-18224-072414-SR-001</i> <i>7/24/2014</i>	<i>IRM-MW-2</i> <i>GW-18224-072414-SR-007</i> <i>7/24/2014</i>	<i>IRM-MW-3</i> <i>GW-18224-072414-SR-004</i> <i>7/24/2014</i>
Hexachlorobutadiene	mg/L	0.00097 U	0.0038 U	0.00095 U
Hexachlorocyclopentadiene	mg/L	0.0049 U	0.019 U	0.0048 U
Hexachloroethane	mg/L	0.0049 U	0.019 U	0.0048 U
Indeno(1,2,3-cd)pyrene	mg/L	0.0019 U	0.0077 U	0.0019 U
Isophorone	mg/L	0.0049 U	0.019 U	0.0048 U
Naphthalene	mg/L	0.0049 U	0.019 U	0.0048 U
Nitrobenzene	mg/L	0.0029 U	0.012 U	0.0029 U
N-Nitrosodi-n-propylamine	mg/L	0.0049 U	0.019 U	0.0048 U
N-Nitrosodiphenylamine	mg/L	0.0049 U	0.019 U	0.0048 U
Pentachlorophenol	mg/L	0.0049 U	0.019 U	0.0048 U
Phenanthrene	mg/L	0.0019 U	0.0077 U	0.0019 U
Phenol	mg/L	0.0049 U	0.019 U	0.0048 U
Pyrene	mg/L	0.0049 U	0.019 U	0.0048 U

Volatile Organic Compounds

1,1,1-Trichloroethane	mg/L	0.25 U	0.017 U	0.008 U
1,1,2,2-Tetrachloroethane	mg/L	0.25 U	0.017 U	0.008 U
1,1,2-Trichloroethane	mg/L	0.25 U	0.017 U	0.008 U
1,1-Dichloroethane	mg/L	0.25 U	0.017 U	0.008 U
1,1-Dichloroethene	mg/L	0.25 U	0.017 U	0.008 U
1,2,4-Trichlorobenzene	mg/L	0.25 U	0.017 U	0.008 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.25 U	0.017 U	0.008 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.25 U	0.017 U	0.008 U
1,2-Dichlorobenzene	mg/L	0.25 U	0.026	0.017
1,2-Dichloroethane	mg/L	0.25 U	0.017 U	0.008 U
1,2-Dichloropropane	mg/L	0.25 U	0.017 U	0.008 U
1,3-Dichlorobenzene	mg/L	0.25 U	0.03	0.016
1,4-Dichlorobenzene	mg/L	0.25 U	0.16	0.028

TABLE 2

Page 4 of 15

**VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014**

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Volatile Organic Compounds**

	<i>Units</i>	<i>IRM-MW-1</i> <i>GW-18224-072414-SR-001</i> <i>7/24/2014</i>	<i>IRM-MW-2</i> <i>GW-18224-072414-SR-007</i> <i>7/24/2014</i>	<i>IRM-MW-3</i> <i>GW-18224-072414-SR-004</i> <i>7/24/2014</i>
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	2.5 U	0.17 U	0.08 U
2-Hexanone	mg/L	2.5 U	0.17 U	0.08 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.5 U	0.17 U	0.08 U
Acetone	mg/L	2.5 U	0.17 U	0.08 U
Benzene	mg/L	0.25 U	0.19	0.008 U
Bromodichloromethane	mg/L	0.25 U	0.017 U	0.008 U
Bromoform	mg/L	0.25 U	0.017 U	0.008 U
Bromomethane (Methyl bromide)	mg/L	0.25 U	0.017 U	0.008 U
Carbon disulfide	mg/L	1.3 U	0.083 U	0.04 U
Carbon tetrachloride	mg/L	0.25 U	0.017 U	0.008 U
Chlorobenzene	mg/L	0.25 U	0.47	0.19
Chloroethane	mg/L	0.25 U	0.017 U	0.008 U
Chloroform (Trichloromethane)	mg/L	3.1	0.017 U	0.008 U
Chloromethane (Methyl chloride)	mg/L	0.25 U	0.017 U	0.008 U
cis-1,2-Dichloroethene	mg/L	0.25 U	0.017 U	0.008 U
cis-1,3-Dichloropropene	mg/L	0.25 U	0.017 U	0.008 U
Cyclohexane	mg/L	0.25 U	0.017 U	0.008 U
Dibromochloromethane	mg/L	0.25 U	0.017 U	0.008 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.25 U	0.017 U	0.008 U
Ethylbenzene	mg/L	0.25 U	0.017 U	0.008 U
Isopropyl benzene	mg/L	0.25 U	0.017 U	0.008 U
Methyl acetate	mg/L	2.5 U	0.17 U	0.08 U
Methyl cyclohexane	mg/L	0.25 U	0.017 U	0.008 U
Methyl tert butyl ether (MTBE)	mg/L	0.25 U	0.017 U	0.008 U
Methylene chloride	mg/L	1.7	0.083 U	0.04 U
Styrene	mg/L	0.25 U	0.017 U	0.008 U
Tetrachloroethene	mg/L	0.25 U	0.017 U	0.008 U
Toluene	mg/L	0.25 U	0.094	0.008 U

TABLE 2

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVERVIEW, MICHIGAN
JULY 2014

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Volatile Organic Compounds**

	<i>Units</i>	<i>IRM-MW-1</i> <i>GW-18224-072414-SR-001</i>	<i>IRM-MW-2</i> <i>GW-18224-072414-SR-007</i>	<i>IRM-MW-3</i> <i>GW-18224-072414-SR-004</i>
trans-1,2-Dichloroethene	mg/L	0.25 U	0.017 U	0.008 U
trans-1,3-Dichloropropene	mg/L	0.25 U	0.017 U	0.008 U
Trichloroethene	mg/L	0.25 U	0.017 U	0.008 U
Trichlorofluoromethane (CFC-11)	mg/L	0.25 U	0.017 U	0.008 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.25 U	0.017 U	0.008 U
Vinyl chloride	mg/L	0.25 U	0.017 U	0.008 U
Xylenes (total)	mg/L	0.5 U	0.033 U	0.016 U

TABLE 2

Page 6 of 15

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014

<i>Sample Location:</i>	<i>IRM-MW-3</i>	<i>MW010A</i>	<i>MW016</i>
<i>Sample Identification:</i>	<i>GW-18224-072414-SR-005</i>	<i>GW-18224-072414-SR-002</i>	<i>GW-18224-072414-SR-003</i>
<i>Sample Date:</i>	<i>7/24/2014</i>	<i>7/24/2014</i>	<i>7/24/2014</i>
<i>Sample Type:</i>	<i>Duplicate</i>		
Metals			
Chromium	mg/L	0.005 U	0.033
Lead	mg/L	0.003 U	0.003 U
Semi-Volatile Organic Compounds			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	0.005 U	0.0048 U
2,4,5-Trichlorophenol	mg/L	0.005 U	0.0048 U
2,4,6-Trichlorophenol	mg/L	0.004 U	0.0038 U
2,4-Dichlorophenol	mg/L	0.0099 U	0.0095 U
2,4-Dimethylphenol	mg/L	0.005 U	0.0048 U
2,4-Dinitrophenol	mg/L	0.02 U	0.019 U
2,4-Dinitrotoluene	mg/L	0.005 U	0.0048 U
2,6-Dinitrotoluene	mg/L	0.005 U	0.0048 U
2-Chloronaphthalene	mg/L	0.0058	0.0048 U
2-Chlorophenol	mg/L	0.005 U	0.0048 U
2-Methylnaphthalene	mg/L	0.005 U	0.0048 U
2-Methylphenol	mg/L	0.005 U	0.0048 U
2-Nitroaniline	mg/L	0.02 U	0.019 U
2-Nitrophenol	mg/L	0.005 U	0.0048 U
3&4-Methylphenol	mg/L	0.005 U	0.0048 U
3,3'-Dichlorobenzidine	mg/L	0.00099 U	R
3-Nitroaniline	mg/L	0.02 U	0.019 U
4,6-Dinitro-2-methylphenol	mg/L	0.02 U	0.019 U
4-Bromophenyl phenyl ether	mg/L	0.005 U	0.0048 U
4-Chloro-3-methylphenol	mg/L	0.005 U	0.0048 U
4-Chloroaniline	mg/L	0.0099 U	0.0095 U
4-Chlorophenyl phenyl ether	mg/L	0.005 U	0.0048 U
4-Nitroaniline	mg/L	0.02 U	0.019 U
4-Nitrophenol	mg/L	0.02 U	0.019 U

TABLE 2

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Semi-Volatile Organic Compounds**

	IRM-MW-3	MW010A	MW016
	GW-18224-072414-SR-005	GW-18224-072414-SR-002	GW-18224-072414-SR-003
	7/24/2014	7/24/2014	7/24/2014
	<i>Duplicate</i>		
	Units		
Acenaphthene	mg/L	0.005 U	0.0048 U
Acenaphthylene	mg/L	0.005 U	0.0048 U
Acetophenone	mg/L	0.005 U	0.0048 U
Anthracene	mg/L	0.005 U	0.0048 U
Atrazine	mg/L	0.003 U	0.0029 U
Benzaldehyde	mg/L	0.005 U	0.0048 U
Benzo(a)anthracene	mg/L	0.00099 U	0.00095 U
Benzo(a)pyrene	mg/L	0.00099 U	0.00095 U
Benzo(b)fluoranthene	mg/L	0.00099 U	0.00095 U
Benzo(g,h,i)perylene	mg/L	0.00099 U	0.00095 U
Benzo(k)fluoranthene	mg/L	0.00099 U	0.00095 U
Biphenyl (1,1-Biphenyl)	mg/L	0.005 U	0.0048 U
bis(2-Chloroethoxy)methane	mg/L	0.005 U	0.0048 U
bis(2-Chloroethyl)ether	mg/L	0.00099 U	0.00095 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.005 U	0.0048 U
Butyl benzylphthalate (BBP)	mg/L	0.005 U	0.0048 U
Caprolactam	mg/L	0.0099 U	0.0095 U
Carbazole	mg/L	0.0099 U	0.0095 U
Chrysene	mg/L	0.00099 U	0.00095 U
Dibenz(a,h)anthracene	mg/L	0.002 U	0.0019 U
Dibenzofuran	mg/L	0.004 U	0.0038 U
Diethyl phthalate	mg/L	0.005 U	0.0048 U
Dimethyl phthalate	mg/L	0.005 U	0.0048 U
Di-n-butylphthalate (DBP)	mg/L	0.005 U	0.0048 U
Di-n-octyl phthalate (DnOP)	mg/L	0.005 U	0.0048 U
Fluoranthene	mg/L	0.00099 U	0.00095 U
Fluorene	mg/L	0.005 U	0.0048 U
Hexachlorobenzene	mg/L	0.0002 U	0.00019 U

TABLE 2

Page 8 of 15

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVERVIEW, MICHIGAN
JULY 2014

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Semi-Volatile Organic Compounds**

	<i>IRM-MW-3</i>	<i>MW010A</i>	<i>MW016</i>
	<i>GW-18224-072414-SR-005</i>	<i>GW-18224-072414-SR-002</i>	<i>GW-18224-072414-SR-003</i>
	7/24/2014	7/24/2014	7/24/2014
	<i>Duplicate</i>		
	<i>Units</i>		
Hexachlorobutadiene	mg/L	0.00099 U	0.00095 U
Hexachlorocyclopentadiene	mg/L	0.005 U	0.0048 U
Hexachloroethane	mg/L	0.005 U	0.0048 U
Indeno(1,2,3-cd)pyrene	mg/L	0.002 U	0.0019 U
Isophorone	mg/L	0.005 U	0.0048 U
Naphthalene	mg/L	0.005 U	0.0048 U
Nitrobenzene	mg/L	0.003 U	0.0029 U
N-Nitrosodi-n-propylamine	mg/L	0.005 U	0.0048 U
N-Nitrosodiphenylamine	mg/L	0.005 U	0.0048 U
Pentachlorophenol	mg/L	0.005 U	0.0048 U
Phenanthrene	mg/L	0.002 U	0.0019 U
Phenol	mg/L	0.005 U	0.0048 U
Pyrene	mg/L	0.005 U	0.0048 U

Volatile Organic Compounds

1,1,1-Trichloroethane	mg/L	0.0067 U	0.01 U	0.0033 U
1,1,2,2-Tetrachloroethane	mg/L	0.0067 U	0.01 U	0.0033 U
1,1,2-Trichloroethane	mg/L	0.0067 U	0.01 U	0.0033 U
1,1-Dichloroethane	mg/L	0.0067 U	0.01 U	0.0033 U
1,1-Dichloroethene	mg/L	0.0067 U	0.01 U	0.0033 U
1,2,4-Trichlorobenzene	mg/L	0.0067 U	0.01 U	0.0033 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0067 U	0.01 U	0.0033 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.0067 U	0.01 U	0.0033 U
1,2-Dichlorobenzene	mg/L	0.017	0.01 U	0.0033 U
1,2-Dichloroethane	mg/L	0.0067 U	0.01 U	0.0033 U
1,2-Dichloropropane	mg/L	0.0067 U	0.01 U	0.0033 U
1,3-Dichlorobenzene	mg/L	0.015	0.01 U	0.0033 U
1,4-Dichlorobenzene	mg/L	0.027	0.01 U	0.0033 U

TABLE 2

Page 9 of 15

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVERVIEW, MICHIGAN
JULY 2014

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Volatile Organic Compounds**

	<i>IRM-MW-3</i>	<i>MW010A</i>	<i>MW016</i>
	<i>GW-18224-072414-SR-005</i>	<i>GW-18224-072414-SR-002</i>	<i>GW-18224-072414-SR-003</i>
	7/24/2014	7/24/2014	7/24/2014
	<i>Duplicate</i>		
	<i>Units</i>		
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.067 U	0.1 U
2-Hexanone	mg/L	0.067 U	0.1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.067 U	0.1 U
Acetone	mg/L	0.067 U	0.1 U
Benzene	mg/L	0.0067 U	0.01 U
Bromodichloromethane	mg/L	0.0067 U	0.01 U
Bromoform	mg/L	0.0067 U	0.01 U
Bromomethane (Methyl bromide)	mg/L	0.0067 U	0.01 U
Carbon disulfide	mg/L	0.033 U	0.05 U
Carbon tetrachloride	mg/L	0.0067 U	0.01 U
Chlorobenzene	mg/L	0.17	0.01 U
Chloroethane	mg/L	0.0067 U	0.01 U
Chloroform (Trichloromethane)	mg/L	0.0067 U	0.01 U
Chloromethane (Methyl chloride)	mg/L	0.0067 U	0.01 U
cis-1,2-Dichloroethene	mg/L	0.0067 U	0.29
cis-1,3-Dichloropropene	mg/L	0.0067 U	0.01 U
Cyclohexane	mg/L	0.0067 U	0.01 U
Dibromochloromethane	mg/L	0.0067 U	0.01 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.0067 U	0.01 U
Ethylbenzene	mg/L	0.0067 U	0.01 U
Isopropyl benzene	mg/L	0.0067 U	0.01 U
Methyl acetate	mg/L	0.067 U	0.1 U
Methyl cyclohexane	mg/L	0.0067 U	0.01 U
Methyl tert butyl ether (MTBE)	mg/L	0.0067 U	0.01 U
Methylene chloride	mg/L	0.033 U	0.05 U
Styrene	mg/L	0.0067 U	0.01 U
Tetrachloroethene	mg/L	0.0067 U	0.056
Toluene	mg/L	0.0067 U	0.01 U

TABLE 2

Page 10 of 15

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Volatile Organic Compounds**

	<i>IRM-MW-3</i>	<i>MW010A</i>	<i>MW016</i>
	<i>GW-18224-072414-SR-005</i>	<i>GW-18224-072414-SR-002</i>	<i>GW-18224-072414-SR-003</i>
	7/24/2014	7/24/2014	7/24/2014
	<i>Duplicate</i>		
	<i>Units</i>		
trans-1,2-Dichloroethene	mg/L	0.0067 U	0.058
trans-1,3-Dichloropropene	mg/L	0.0067 U	0.01 U
Trichloroethene	mg/L	0.0067 U	0.24
Trichlorofluoromethane (CFC-11)	mg/L	0.0067 U	0.01 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.0067 U	0.01 U
Vinyl chloride	mg/L	0.0067 U	0.01
Xylenes (total)	mg/L	0.013 U	0.02 U
			0.0033 U
			0.0033 U
			0.0033 U
			0.0033 U
			0.0033 U
			0.0067 U

TABLE 2

**VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014**

<i>Sample Location:</i>	<i>MW025</i>	<i>Trip Blank</i>
<i>Sample Identification:</i>	<i>GW-18224-072414-SR-006</i>	<i>TB-18224-072414</i>
<i>Sample Date:</i>	<i>7/24/2014</i>	<i>7/24/2014</i>
<i>Sample Type:</i>		
	<i>Units</i>	
<i>Metals</i>		
Chromium	mg/L	0.0075
Lead	mg/L	0.003 U
<i>Semi-Volatile Organic Compounds</i>		
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/L	0.0048 U
2,4,5-Trichlorophenol	mg/L	0.0048 U
2,4,6-Trichlorophenol	mg/L	0.0038 U
2,4-Dichlorophenol	mg/L	0.0095 U
2,4-Dimethylphenol	mg/L	0.0048 U
2,4-Dinitrophenol	mg/L	0.019 U
2,4-Dinitrotoluene	mg/L	0.0048 U
2,6-Dinitrotoluene	mg/L	0.0048 U
2-Chloronaphthalene	mg/L	0.0048 U
2-Chlorophenol	mg/L	0.0048 U
2-Methylnaphthalene	mg/L	0.0048 U
2-Methylphenol	mg/L	0.0048 U
2-Nitroaniline	mg/L	0.019 U
2-Nitrophenol	mg/L	0.0048 U
3&4-Methylphenol	mg/L	0.0048 U
3,3'-Dichlorobenzidine	mg/L	0.00095 U
3-Nitroaniline	mg/L	0.019 U
4,6-Dinitro-2-methylphenol	mg/L	0.019 U
4-Bromophenyl phenyl ether	mg/L	0.0048 U
4-Chloro-3-methylphenol	mg/L	0.0048 U
4-Chloroaniline	mg/L	0.0095 U
4-Chlorophenyl phenyl ether	mg/L	0.0048 U
4-Nitroaniline	mg/L	0.019 U
4-Nitrophenol	mg/L	0.019 U

TABLE 2

**VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVERVIEW, MICHIGAN
JULY 2014**

Sample Location:**Sample Identification:****Sample Date:****Sample Type:*****Semi-Volatile Organic Compounds***

	<i>MW025</i>	<i>Trip Blank</i>
	<i>GW-18224-072414-SR-006</i>	<i>TB-18224-072414</i>
	<i>7/24/2014</i>	<i>7/24/2014</i>
	<i>Units</i>	
Acenaphthene	mg/L	0.0048 U
Acenaphthylene	mg/L	0.0048 U
Acetophenone	mg/L	0.0048 U
Anthracene	mg/L	0.0048 U
Atrazine	mg/L	0.0029 U
Benzaldehyde	mg/L	0.0048 U
Benzo(a)anthracene	mg/L	0.00095 U
Benzo(a)pyrene	mg/L	0.00095 U
Benzo(b)fluoranthene	mg/L	0.00095 U
Benzo(g,h,i)perylene	mg/L	0.00095 U
Benzo(k)fluoranthene	mg/L	0.00095 U
Biphenyl (1,1-Biphenyl)	mg/L	0.0048 U
bis(2-Chloroethoxy)methane	mg/L	0.0048 U
bis(2-Chloroethyl)ether	mg/L	0.00095 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.0048 U
Butyl benzylphthalate (BBP)	mg/L	0.0048 U
Caprolactam	mg/L	0.0095 U
Carbazole	mg/L	0.0095 U
Chrysene	mg/L	0.00095 U
Dibenz(a,h)anthracene	mg/L	0.0019 U
Dibenzofuran	mg/L	0.0038 U
Diethyl phthalate	mg/L	0.0048 U
Dimethyl phthalate	mg/L	0.0048 U
Di-n-butylphthalate (DBP)	mg/L	0.0048 U
Di-n-octyl phthalate (DnOP)	mg/L	0.0048 U
Fluoranthene	mg/L	0.00095 U
Fluorene	mg/L	0.0048 U
Hexachlorobenzene	mg/L	0.00019 U

TABLE 2

**VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVERVIEW, MICHIGAN
JULY 2014**

Sample Location:***Sample Identification:******Sample Date:******Sample Type:******Semi-Volatile Organic Compounds***

	<i>MW025</i>	<i>Trip Blank</i>
	<i>GW-18224-072414-SR-006</i>	<i>TB-18224-072414</i>
	7/24/2014	7/24/2014
	<i>Units</i>	
Hexachlorobutadiene	mg/L	0.00095 U
Hexachlorocyclopentadiene	mg/L	0.0048 U
Hexachloroethane	mg/L	0.0048 U
Indeno(1,2,3-cd)pyrene	mg/L	0.0019 U
Isophorone	mg/L	0.0048 U
Naphthalene	mg/L	0.0048 U
Nitrobenzene	mg/L	0.0029 U
N-Nitrosodi-n-propylamine	mg/L	0.0048 U
N-Nitrosodiphenylamine	mg/L	0.0048 U
Pentachlorophenol	mg/L	0.0048 U
Phenanthrene	mg/L	0.0019 U
Phenol	mg/L	0.0048 U
Pyrene	mg/L	0.0048 U

Volatile Organic Compounds

1,1,1-Trichloroethane	mg/L	0.002 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.002 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.002 U	0.001 U
1,1-Dichloroethane	mg/L	0.002 U	0.001 U
1,1-Dichloroethene	mg/L	0.002 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.002 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.002 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.002 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.0028	0.001 U
1,2-Dichloroethane	mg/L	0.002 U	0.001 U
1,2-Dichloropropane	mg/L	0.002 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.0031	0.001 U
1,4-Dichlorobenzene	mg/L	0.0085	0.001 U

TABLE 2

**VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014**

Sample Location:**Sample Identification:****Sample Date:****Sample Type:****Volatile Organic Compounds**

	<i>Units</i>	<i>MW025</i>	<i>Trip Blank</i>
		<i>GW-18224-072414-SR-006</i>	<i>TB-18224-072414</i>
		<i>7/24/2014</i>	<i>7/24/2014</i>
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	0.02 U	0.01 U
2-Hexanone	mg/L	0.02 U	0.01 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	0.02 U	0.01 U
Acetone	mg/L	0.02 U	0.01 U
Benzene	mg/L	0.002 U	0.001 U
Bromodichloromethane	mg/L	0.002 U	0.001 U
Bromoform	mg/L	0.002 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.002 U	0.001 U
Carbon disulfide	mg/L	0.01 U	0.005 U
Carbon tetrachloride	mg/L	0.002 U	0.001 U
Chlorobenzene	mg/L	0.029	0.001 U
Chloroethane	mg/L	0.002 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.002 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.002 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.002 U	0.001 U
cis-1,3-Dichloropropene	mg/L	0.002 U	0.001 U
Cyclohexane	mg/L	0.002 U	0.001 U
Dibromochloromethane	mg/L	0.002 U	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	0.002 U	0.001 U
Ethylbenzene	mg/L	0.002 U	0.001 U
Isopropyl benzene	mg/L	0.002 U	0.001 U
Methyl acetate	mg/L	0.02 U	0.01 U
Methyl cyclohexane	mg/L	0.002 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.002 U	0.001 U
Methylene chloride	mg/L	0.01 U	0.005 U
Styrene	mg/L	0.002 U	0.001 U
Tetrachloroethene	mg/L	0.002 U	0.001 U
Toluene	mg/L	0.002 U	0.001 U

TABLE 2

VALIDATED ANALYTICAL SUMMARY RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014

Sample Location:**Sample Identification:****Sample Date:****Sample Type:**

MW025	Trip Blank
GW-18224-072414-SR-006	TB-18224-072414
7/24/2014	7/24/2014

Units**Volatile Organic Compounds**

trans-1,2-Dichloroethene	mg/L	0.002 U	0.001 U
trans-1,3-Dichloropropene	mg/L	0.002 U	0.001 U
Trichloroethene	mg/L	0.002 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	0.002 U	0.001 U
Trifluorotrichloroethane (Freon 113)	mg/L	0.002 U	0.001 U
Vinyl chloride	mg/L	0.002 U	0.001 U
Xylenes (total)	mg/L	0.004 U	0.002 U

Notes:

U - Not detected at the associated reporting limit.

R - Rejected.

(1)MDEQ (Michigan) Generic groundwater cleanup criteria, administrative rule R 299.44 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended (Part 201 Groundwater Criteria)

TABLE 3

Page 1 of 1

**ANALYTICAL METHODS AND HOLDING TIME CRITERIA
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVerview, MICHIGAN
JULY 2014**

Parameter	Method	Matrix	Preservation	Holding Time	
				Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
TCL VOC	SW-846 8260B	Water	pH < 2 and Iced, 4 ± 2° C	-	14
TCL SVOC	SW-846 8270C	Water	Iced, 4 ± 2° C	7	40
Chromium and Lead	SW-846 6010B	Water	pH < 2 and Iced, 4 ± 2° C	-	180

Notes

- SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions.
- TCL - Target Compound List
- VOC - Volatile Organic Compounds
- SVOC - Semivolatile Organic Compounds

TABLE 4

Page 1 of 1

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS
QUARTERLY MONITORING EVENT
ARKEMA EAST PLANT - HALOWAX AREA
WYANDOTTE/RIVERVIEW, MICHIGAN
JULY 2014

<i>Parameter</i>	<i>Sample ID</i>	<i>Analyte</i>	<i>MS</i>	<i>MSD</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Result</i>	<i>Units</i>
			<i>% Recovery</i>	<i>% Recovery</i>	(percent)	<i>% Recovery</i>	<i>RPD</i>		
TCL SVOC	GW-18224-072414-SR-003	3,3'-Dichlorobenzidine	0	2	NC	10-110	99	R	µg/L
		Benzo(g,h,i)perylene	4	39	159	18-110	87	R	µg/L
		Dibenz(a,h)anthracene	7	41	145	14-110	92	R	µg/L
		Hexachlorocyclopentadiene	0	7	NC	4-110	68	R	µg/L
		Indeno(1,2,3-cd)pyrene	6	44	154	16-110	89	R	µg/L

Notes:

- R - Rejected.
- MS - Matrix spike.
- MSD - Matrix spike duplicate.
- RPD - Relative percent difference.
- TCL - Target Compound List
- SVOC - Semivolatile Organic Compounds
- NC - Not calculable

Attachment C

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-39898-1

Client Project/Site: 18224-007, Arkema Halowax Area

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher

Denise Heckler

Authorized for release by:

8/8/2014 4:28:57 PM

Denise Heckler, Project Manager II

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denise.heckler@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	5
Sample Summary	6
Detection Summary	7
Method Summary	9
Client Sample Results	10
QC Association Summary	47
QC Sample Results	49
Surrogate Summary	65
Lab Chronicle	66
Certification Summary	68
Chain of Custody	69

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Job ID: 240-39898-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 18224-007, Arkema Halowax Area

Report Number: 240-39898-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 07/25/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.4° C, 2.8° C and 4.2° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples GW-18224-072414-SR-001 (240-39898-1), GW-18224-072414-SR-002 (240-39898-2), GW-18224-072414-SR-003 (240-39898-3), GW-18224-072414-SR-004 (240-39898-4), GW-18224-072414-SR-005 (240-39898-5), GW-18224-072414-SR-006 (240-39898-6), GW-18224-072414-SR-007 (240-39898-7) and TB-18224-072414 (240-39898-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/28/2014.

The following sample was diluted due to foaming at the time of purging during the original sample analysis: GW-18224-072414-SR-006 (240-39898-6). Elevated reporting limits (RLs) are provided.

Samples GW-18224-072414-SR-001 (240-39898-1)[250X], GW-18224-072414-SR-002 (240-39898-2)[10X], GW-18224-072414-SR-003 (240-39898-3)[3.33X], GW-18224-072414-SR-004 (240-39898-4)[8X], GW-18224-072414-SR-005 (240-39898-5)[6.67X], GW-18224-072414-SR-006 (240-39898-6)[2X] and GW-18224-072414-SR-007 (240-39898-7)[16.67X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Job ID: 240-39898-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

SEMICVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples GW-18224-072414-SR-001 (240-39898-1), GW-18224-072414-SR-002 (240-39898-2), GW-18224-072414-SR-003 (240-39898-3), GW-18224-072414-SR-004 (240-39898-4), GW-18224-072414-SR-005 (240-39898-5), GW-18224-072414-SR-006 (240-39898-6) and GW-18224-072414-SR-007 (240-39898-7) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 07/30/2014 and 07/31/2014 and analyzed on 08/03/2014, 08/06/2014 and 08/08/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Several analytes failed the recovery criteria low for the MS of sample GW-18224-072414-SR-003MS (240-39898-3) in batch 240-141241.

Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates per fraction to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: GW-18224-072414-SR-003 (240-39898-3). The results have been reported and qualified.

For the MSD of sample GW-18224-072414-SR-003MSD (240-39898-3) in batch 240-141241, 3,3'-Dichlorobenzidine failed the recovery criteria low. Di-n-octyl phthalate failed the recovery criteria high. Also, Several analytes exceeded the RPD limit.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 140902.

Sample GW-18224-072414-SR-007 (240-39898-7)[4X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Samples GW-18224-072414-SR-001 (240-39898-1), GW-18224-072414-SR-002 (240-39898-2), GW-18224-072414-SR-003 (240-39898-3), GW-18224-072414-SR-004 (240-39898-4), GW-18224-072414-SR-005 (240-39898-5), GW-18224-072414-SR-006 (240-39898-6) and GW-18224-072414-SR-007 (240-39898-7) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 07/28/2014 and analyzed on 07/29/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
E	Result exceeded calibration range.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-39898-1	GW-18224-072414-SR-001	Water	07/24/14 10:30	07/25/14 07:45
240-39898-2	GW-18224-072414-SR-002	Water	07/24/14 10:30	07/25/14 07:45
240-39898-3	GW-18224-072414-SR-003	Water	07/24/14 12:15	07/25/14 07:45
240-39898-4	GW-18224-072414-SR-004	Water	07/24/14 13:25	07/25/14 07:45
240-39898-5	GW-18224-072414-SR-005	Water	07/24/14 13:25	07/25/14 07:45
240-39898-6	GW-18224-072414-SR-006	Water	07/24/14 14:25	07/25/14 07:45
240-39898-7	GW-18224-072414-SR-007	Water	07/24/14 15:55	07/25/14 07:45
240-39898-8	TB-18224-072414	Water	07/24/14 00:00	07/25/14 07:45

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Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Client Sample ID: GW-18224-072414-SR-001

Lab Sample ID: 240-39898-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	3100		250	ug/L	250		8260B	Total/NA
Methylene Chloride	1700		1300	ug/L	250		8260B	Total/NA

Client Sample ID: GW-18224-072414-SR-002

Lab Sample ID: 240-39898-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	56		10	ug/L	10		8260B	Total/NA
Trichloroethene	240		10	ug/L	10		8260B	Total/NA
Vinyl chloride	10		10	ug/L	10		8260B	Total/NA
cis-1,2-Dichloroethene	290		10	ug/L	10		8260B	Total/NA
trans-1,2-Dichloroethene	58		10	ug/L	10		8260B	Total/NA
3 & 4 Methylphenol	18		4.8	ug/L	1		8270C	Total/NA

Client Sample ID: GW-18224-072414-SR-003

Lab Sample ID: 240-39898-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	100		3.3	ug/L	3.33		8260B	Total/NA
Chromium	33		5.0	ug/L	1		6010B	Total Recoverable

Client Sample ID: GW-18224-072414-SR-004

Lab Sample ID: 240-39898-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	190		8.0	ug/L	8		8260B	Total/NA
1,2-Dichlorobenzene	17		8.0	ug/L	8		8260B	Total/NA
1,3-Dichlorobenzene	16		8.0	ug/L	8		8260B	Total/NA
1,4-Dichlorobenzene	28		8.0	ug/L	8		8260B	Total/NA
2-Chloronaphthalene	5.1		4.8	ug/L	1		8270C	Total/NA

Client Sample ID: GW-18224-072414-SR-005

Lab Sample ID: 240-39898-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	170		6.7	ug/L	6.67		8260B	Total/NA
1,2-Dichlorobenzene	17		6.7	ug/L	6.67		8260B	Total/NA
1,3-Dichlorobenzene	15		6.7	ug/L	6.67		8260B	Total/NA
1,4-Dichlorobenzene	27		6.7	ug/L	6.67		8260B	Total/NA
2-Chloronaphthalene	5.8		5.0	ug/L	1		8270C	Total/NA

Client Sample ID: GW-18224-072414-SR-006

Lab Sample ID: 240-39898-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	29		2.0	ug/L	2		8260B	Total/NA
1,2-Dichlorobenzene	2.8		2.0	ug/L	2		8260B	Total/NA
1,3-Dichlorobenzene	3.1		2.0	ug/L	2		8260B	Total/NA
1,4-Dichlorobenzene	8.5		2.0	ug/L	2		8260B	Total/NA
Chromium	7.5		5.0	ug/L	1		6010B	Total Recoverable

Client Sample ID: GW-18224-072414-SR-007

Lab Sample ID: 240-39898-7

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Client Sample ID: GW-18224-072414-SR-007 (Continued)

Lab Sample ID: 240-39898-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Benzene	190		17	ug/L	16.67		8260B	Total/NA
Chlorobenzene	470		17	ug/L	16.67		8260B	Total/NA
Toluene	94		17	ug/L	16.67		8260B	Total/NA
1,2-Dichlorobenzene	26		17	ug/L	16.67		8260B	Total/NA
1,3-Dichlorobenzene	30		17	ug/L	16.67		8260B	Total/NA
1,4-Dichlorobenzene	160		17	ug/L	16.67		8260B	Total/NA
2-Chloronaphthalene	32		19	ug/L		4	8270C	Total/NA

Client Sample ID: TB-18224-072414

Lab Sample ID: 240-39898-8

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-001

Date Collected: 07/24/14 10:30

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	2500	U	2500	ug/L			07/28/14 17:22	250
Benzene	250	U	250	ug/L			07/28/14 17:22	250
Bromodichloromethane	250	U	250	ug/L			07/28/14 17:22	250
Bromoform	250	U	250	ug/L			07/28/14 17:22	250
Bromomethane	250	U	250	ug/L			07/28/14 17:22	250
2-Butanone (MEK)	2500	U	2500	ug/L			07/28/14 17:22	250
Carbon disulfide	1300	U	1300	ug/L			07/28/14 17:22	250
Carbon tetrachloride	250	U	250	ug/L			07/28/14 17:22	250
Chlorobenzene	250	U	250	ug/L			07/28/14 17:22	250
Chloroethane	250	U	250	ug/L			07/28/14 17:22	250
Chloroform	3100		250	ug/L			07/28/14 17:22	250
Chloromethane	250	U	250	ug/L			07/28/14 17:22	250
1,1-Dichloroethane	250	U	250	ug/L			07/28/14 17:22	250
1,2-Dichloroethane	250	U	250	ug/L			07/28/14 17:22	250
1,1-Dichloroethene	250	U	250	ug/L			07/28/14 17:22	250
1,2-Dichloropropane	250	U	250	ug/L			07/28/14 17:22	250
cis-1,3-Dichloropropene	250	U	250	ug/L			07/28/14 17:22	250
trans-1,3-Dichloropropene	250	U	250	ug/L			07/28/14 17:22	250
Ethylbenzene	250	U	250	ug/L			07/28/14 17:22	250
2-Hexanone	2500	U	2500	ug/L			07/28/14 17:22	250
Methylene Chloride	1700		1300	ug/L			07/28/14 17:22	250
4-Methyl-2-pentanone (MIBK)	2500	U	2500	ug/L			07/28/14 17:22	250
Styrene	250	U	250	ug/L			07/28/14 17:22	250
1,1,2,2-Tetrachloroethane	250	U	250	ug/L			07/28/14 17:22	250
Tetrachloroethene	250	U	250	ug/L			07/28/14 17:22	250
Toluene	250	U	250	ug/L			07/28/14 17:22	250
Trichloroethene	250	U	250	ug/L			07/28/14 17:22	250
Vinyl chloride	250	U	250	ug/L			07/28/14 17:22	250
Xylenes, Total	500	U	500	ug/L			07/28/14 17:22	250
1,1,1-Trichloroethane	250	U	250	ug/L			07/28/14 17:22	250
1,1,2-Trichloroethane	250	U	250	ug/L			07/28/14 17:22	250
Cyclohexane	250	U	250	ug/L			07/28/14 17:22	250
1,2-Dibromo-3-Chloropropane	250	U	250	ug/L			07/28/14 17:22	250
1,2-Dibromoethane	250	U	250	ug/L			07/28/14 17:22	250
Dichlorodifluoromethane	250	U	250	ug/L			07/28/14 17:22	250
cis-1,2-Dichloroethene	250	U	250	ug/L			07/28/14 17:22	250
trans-1,2-Dichloroethene	250	U	250	ug/L			07/28/14 17:22	250
Isopropylbenzene	250	U	250	ug/L			07/28/14 17:22	250
Methyl acetate	2500	U	2500	ug/L			07/28/14 17:22	250
Methyl tert-butyl ether	250	U	250	ug/L			07/28/14 17:22	250
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	ug/L			07/28/14 17:22	250
1,2,4-Trichlorobenzene	250	U	250	ug/L			07/28/14 17:22	250
1,2-Dichlorobenzene	250	U	250	ug/L			07/28/14 17:22	250
1,3-Dichlorobenzene	250	U	250	ug/L			07/28/14 17:22	250
1,4-Dichlorobenzene	250	U	250	ug/L			07/28/14 17:22	250
Trichlorofluoromethane	250	U	250	ug/L			07/28/14 17:22	250
Dibromochloromethane	250	U	250	ug/L			07/28/14 17:22	250
Methylcyclohexane	250	U	250	ug/L			07/28/14 17:22	250

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		63 - 129		07/28/14 17:22	250
4-Bromofluorobenzene (Surr)	80		66 - 120		07/28/14 17:22	250
Toluene-d8 (Surr)	87		74 - 120		07/28/14 17:22	250
Dibromofluoromethane (Surr)	97		75 - 121		07/28/14 17:22	250

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Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-002

Date Collected: 07/24/14 10:30

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-2

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	100	ug/L		07/28/14 17:44		10
Benzene	10	U	10	ug/L		07/28/14 17:44		10
Bromodichloromethane	10	U	10	ug/L		07/28/14 17:44		10
Bromoform	10	U	10	ug/L		07/28/14 17:44		10
Bromomethane	10	U	10	ug/L		07/28/14 17:44		10
2-Butanone (MEK)	100	U	100	ug/L		07/28/14 17:44		10
Carbon disulfide	50	U	50	ug/L		07/28/14 17:44		10
Carbon tetrachloride	10	U	10	ug/L		07/28/14 17:44		10
Chlorobenzene	10	U	10	ug/L		07/28/14 17:44		10
Chloroethane	10	U	10	ug/L		07/28/14 17:44		10
Chloroform	10	U	10	ug/L		07/28/14 17:44		10
Chloromethane	10	U	10	ug/L		07/28/14 17:44		10
1,1-Dichloroethane	10	U	10	ug/L		07/28/14 17:44		10
1,2-Dichloroethane	10	U	10	ug/L		07/28/14 17:44		10
1,1-Dichloroethene	10	U	10	ug/L		07/28/14 17:44		10
1,2-Dichloropropane	10	U	10	ug/L		07/28/14 17:44		10
cis-1,3-Dichloropropene	10	U	10	ug/L		07/28/14 17:44		10
trans-1,3-Dichloropropene	10	U	10	ug/L		07/28/14 17:44		10
Ethylbenzene	10	U	10	ug/L		07/28/14 17:44		10
2-Hexanone	100	U	100	ug/L		07/28/14 17:44		10
Methylene Chloride	50	U	50	ug/L		07/28/14 17:44		10
4-Methyl-2-pentanone (MIBK)	100	U	100	ug/L		07/28/14 17:44		10
Styrene	10	U	10	ug/L		07/28/14 17:44		10
1,1,2,2-Tetrachloroethane	10	U	10	ug/L		07/28/14 17:44		10
Tetrachloroethene	56		10	ug/L		07/28/14 17:44		10
Toluene	10	U	10	ug/L		07/28/14 17:44		10
Trichloroethene	240		10	ug/L		07/28/14 17:44		10
Vinyl chloride	10		10	ug/L		07/28/14 17:44		10
Xylenes, Total	20	U	20	ug/L		07/28/14 17:44		10
1,1,1-Trichloroethane	10	U	10	ug/L		07/28/14 17:44		10
1,1,2-Trichloroethane	10	U	10	ug/L		07/28/14 17:44		10
Cyclohexane	10	U	10	ug/L		07/28/14 17:44		10
1,2-Dibromo-3-Chloropropane	10	U	10	ug/L		07/28/14 17:44		10
1,2-Dibromoethane	10	U	10	ug/L		07/28/14 17:44		10
Dichlorodifluoromethane	10	U	10	ug/L		07/28/14 17:44		10
cis-1,2-Dichloroethene	290		10	ug/L		07/28/14 17:44		10
trans-1,2-Dichloroethene	58		10	ug/L		07/28/14 17:44		10
Isopropylbenzene	10	U	10	ug/L		07/28/14 17:44		10
Methyl acetate	100	U	100	ug/L		07/28/14 17:44		10
Methyl tert-butyl ether	10	U	10	ug/L		07/28/14 17:44		10
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	10	ug/L		07/28/14 17:44		10
1,2,4-Trichlorobenzene	10	U	10	ug/L		07/28/14 17:44		10
1,2-Dichlorobenzene	10	U	10	ug/L		07/28/14 17:44		10
1,3-Dichlorobenzene	10	U	10	ug/L		07/28/14 17:44		10
1,4-Dichlorobenzene	10	U	10	ug/L		07/28/14 17:44		10
Trichlorofluoromethane	10	U	10	ug/L		07/28/14 17:44		10
Dibromochloromethane	10	U	10	ug/L		07/28/14 17:44		10
Methylcyclohexane	10	U	10	ug/L		07/28/14 17:44		10

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		63 - 129		07/28/14 17:44	10
4-Bromofluorobenzene (Surr)	80		66 - 120		07/28/14 17:44	10
Toluene-d8 (Surr)	89		74 - 120		07/28/14 17:44	10
Dibromofluoromethane (Surr)	97		75 - 121		07/28/14 17:44	10

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TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-003

Lab Sample ID: 240-39898-3

Date Collected: 07/24/14 12:15

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	33	U	33	ug/L		07/28/14 14:45		3.33
Benzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Bromodichloromethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Bromoform	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Bromomethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
2-Butanone (MEK)	33	U	33	ug/L		07/28/14 14:45		3.33
Carbon disulfide	17	U	17	ug/L		07/28/14 14:45		3.33
Carbon tetrachloride	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Chlorobenzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Chloroethane	100		3.3	ug/L		07/28/14 14:45		3.33
Chloroform	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Chloromethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,1-Dichloroethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,2-Dichloroethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,1-Dichloroethene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,2-Dichloropropane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
cis-1,3-Dichloropropene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
trans-1,3-Dichloropropene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Ethylbenzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
2-Hexanone	33	U	33	ug/L		07/28/14 14:45		3.33
Methylene Chloride	17	U	17	ug/L		07/28/14 14:45		3.33
4-Methyl-2-pentanone (MIBK)	33	U	33	ug/L		07/28/14 14:45		3.33
Styrene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,1,2,2-Tetrachloroethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Tetrachloroethene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Toluene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Trichloroethene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Vinyl chloride	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Xylenes, Total	6.7	U	6.7	ug/L		07/28/14 14:45		3.33
1,1,1-Trichloroethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,1,2-Trichloroethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Cyclohexane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,2-Dibromo-3-Chloropropane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,2-Dibromoethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Dichlorodifluoromethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
cis-1,2-Dichloroethene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
trans-1,2-Dichloroethene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Isopropylbenzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Methyl acetate	33	U	33	ug/L		07/28/14 14:45		3.33
Methyl tert-butyl ether	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,2,4-Trichlorobenzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,2-Dichlorobenzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,3-Dichlorobenzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
1,4-Dichlorobenzene	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Trichlorofluoromethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Dibromochloromethane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33
Methylcyclohexane	3.3	U	3.3	ug/L		07/28/14 14:45		3.33

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		63 - 129		07/28/14 14:45	3.33
4-Bromofluorobenzene (Surr)	78		66 - 120		07/28/14 14:45	3.33
Toluene-d8 (Surr)	85		74 - 120		07/28/14 14:45	3.33
Dibromofluoromethane (Surr)	94		75 - 121		07/28/14 14:45	3.33

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-004

Date Collected: 07/24/14 13:25

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-4

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	80	U	80	ug/L		07/28/14 18:07		8
Benzene	8.0	U	8.0	ug/L		07/28/14 18:07		8
Bromodichloromethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
Bromoform	8.0	U	8.0	ug/L		07/28/14 18:07		8
Bromomethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
2-Butanone (MEK)	80	U	80	ug/L		07/28/14 18:07		8
Carbon disulfide	40	U	40	ug/L		07/28/14 18:07		8
Carbon tetrachloride	8.0	U	8.0	ug/L		07/28/14 18:07		8
Chlorobenzene	190		8.0	ug/L		07/28/14 18:07		8
Chloroethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
Chloroform	8.0	U	8.0	ug/L		07/28/14 18:07		8
Chloromethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,1-Dichloroethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,2-Dichloroethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,1-Dichloroethene	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,2-Dichloropropane	8.0	U	8.0	ug/L		07/28/14 18:07		8
cis-1,3-Dichloropropene	8.0	U	8.0	ug/L		07/28/14 18:07		8
trans-1,3-Dichloropropene	8.0	U	8.0	ug/L		07/28/14 18:07		8
Ethylbenzene	8.0	U	8.0	ug/L		07/28/14 18:07		8
2-Hexanone	80	U	80	ug/L		07/28/14 18:07		8
Methylene Chloride	40	U	40	ug/L		07/28/14 18:07		8
4-Methyl-2-pentanone (MIBK)	80	U	80	ug/L		07/28/14 18:07		8
Styrene	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,1,2,2-Tetrachloroethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
Tetrachloroethene	8.0	U	8.0	ug/L		07/28/14 18:07		8
Toluene	8.0	U	8.0	ug/L		07/28/14 18:07		8
Trichloroethene	8.0	U	8.0	ug/L		07/28/14 18:07		8
Vinyl chloride	8.0	U	8.0	ug/L		07/28/14 18:07		8
Xylenes, Total	16	U	16	ug/L		07/28/14 18:07		8
1,1,1-Trichloroethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,1,2-Trichloroethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
Cyclohexane	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,2-Dibromo-3-Chloropropane	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,2-Dibromoethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
Dichlorodifluoromethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
cis-1,2-Dichloroethene	8.0	U	8.0	ug/L		07/28/14 18:07		8
trans-1,2-Dichloroethene	8.0	U	8.0	ug/L		07/28/14 18:07		8
Isopropylbenzene	8.0	U	8.0	ug/L		07/28/14 18:07		8
Methyl acetate	80	U	80	ug/L		07/28/14 18:07		8
Methyl tert-butyl ether	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,1,2-Trichloro-1,2,2-trifluoroethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,2,4-Trichlorobenzene	8.0	U	8.0	ug/L		07/28/14 18:07		8
1,2-Dichlorobenzene	17		8.0	ug/L		07/28/14 18:07		8
1,3-Dichlorobenzene	16		8.0	ug/L		07/28/14 18:07		8
1,4-Dichlorobenzene	28		8.0	ug/L		07/28/14 18:07		8
Trichlorofluoromethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
Dibromochloromethane	8.0	U	8.0	ug/L		07/28/14 18:07		8
Methylcyclohexane	8.0	U	8.0	ug/L		07/28/14 18:07		8

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		63 - 129		07/28/14 18:07	8
4-Bromofluorobenzene (Surr)	87		66 - 120		07/28/14 18:07	8
Toluene-d8 (Surr)	87		74 - 120		07/28/14 18:07	8
Dibromofluoromethane (Surr)	99		75 - 121		07/28/14 18:07	8

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-005

Date Collected: 07/24/14 13:25

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-5

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	67	U	67	ug/L		07/28/14 18:30		6.67
Benzene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Bromodichloromethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Bromoform	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Bromomethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
2-Butanone (MEK)	67	U	67	ug/L		07/28/14 18:30		6.67
Carbon disulfide	33	U	33	ug/L		07/28/14 18:30		6.67
Carbon tetrachloride	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Chlorobenzene	170		6.7	ug/L		07/28/14 18:30		6.67
Chloroethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Chloroform	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Chloromethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,1-Dichloroethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,2-Dichloroethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,1-Dichloroethene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,2-Dichloropropane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
cis-1,3-Dichloropropene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
trans-1,3-Dichloropropene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Ethylbenzene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
2-Hexanone	67	U	67	ug/L		07/28/14 18:30		6.67
Methylene Chloride	33	U	33	ug/L		07/28/14 18:30		6.67
4-Methyl-2-pentanone (MIBK)	67	U	67	ug/L		07/28/14 18:30		6.67
Styrene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,1,2,2-Tetrachloroethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Tetrachloroethene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Toluene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Trichloroethene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Vinyl chloride	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Xylenes, Total	13	U	13	ug/L		07/28/14 18:30		6.67
1,1,1-Trichloroethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,1,2-Trichloroethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Cyclohexane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,2-Dibromo-3-Chloropropane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,2-Dibromoethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Dichlorodifluoromethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
cis-1,2-Dichloroethene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
trans-1,2-Dichloroethene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Isopropylbenzene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Methyl acetate	67	U	67	ug/L		07/28/14 18:30		6.67
Methyl tert-butyl ether	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,1,2-Trichloro-1,2,2-trifluoroethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,2,4-Trichlorobenzene	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
1,2-Dichlorobenzene	17		6.7	ug/L		07/28/14 18:30		6.67
1,3-Dichlorobenzene	15		6.7	ug/L		07/28/14 18:30		6.67
1,4-Dichlorobenzene	27		6.7	ug/L		07/28/14 18:30		6.67
Trichlorofluoromethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Dibromochloromethane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67
Methylcyclohexane	6.7	U	6.7	ug/L		07/28/14 18:30		6.67

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 129		07/28/14 18:30	6.67
4-Bromofluorobenzene (Surr)	79		66 - 120		07/28/14 18:30	6.67
Toluene-d8 (Surr)	83		74 - 120		07/28/14 18:30	6.67
Dibromofluoromethane (Surr)	93		75 - 121		07/28/14 18:30	6.67

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-006

Date Collected: 07/24/14 14:25

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-6

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	ug/L		07/28/14 18:53		2
Benzene	2.0	U	2.0	ug/L		07/28/14 18:53		2
Bromodichloromethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
Bromoform	2.0	U	2.0	ug/L		07/28/14 18:53		2
Bromomethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
2-Butanone (MEK)	20	U	20	ug/L		07/28/14 18:53		2
Carbon disulfide	10	U	10	ug/L		07/28/14 18:53		2
Carbon tetrachloride	2.0	U	2.0	ug/L		07/28/14 18:53		2
Chlorobenzene	29		2.0	ug/L		07/28/14 18:53		2
Chloroethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
Chloroform	2.0	U	2.0	ug/L		07/28/14 18:53		2
Chloromethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,1-Dichloroethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,2-Dichloroethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,1-Dichloroethene	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,2-Dichloropropane	2.0	U	2.0	ug/L		07/28/14 18:53		2
cis-1,3-Dichloropropene	2.0	U	2.0	ug/L		07/28/14 18:53		2
trans-1,3-Dichloropropene	2.0	U	2.0	ug/L		07/28/14 18:53		2
Ethylbenzene	2.0	U	2.0	ug/L		07/28/14 18:53		2
2-Hexanone	20	U	20	ug/L		07/28/14 18:53		2
Methylene Chloride	10	U	10	ug/L		07/28/14 18:53		2
4-Methyl-2-pentanone (MIBK)	20	U	20	ug/L		07/28/14 18:53		2
Styrene	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
Tetrachloroethene	2.0	U	2.0	ug/L		07/28/14 18:53		2
Toluene	2.0	U	2.0	ug/L		07/28/14 18:53		2
Trichloroethene	2.0	U	2.0	ug/L		07/28/14 18:53		2
Vinyl chloride	2.0	U	2.0	ug/L		07/28/14 18:53		2
Xylenes, Total	4.0	U	4.0	ug/L		07/28/14 18:53		2
1,1,1-Trichloroethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,1,2-Trichloroethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
Cyclohexane	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,2-Dibromoethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
Dichlorodifluoromethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
cis-1,2-Dichloroethene	2.0	U	2.0	ug/L		07/28/14 18:53		2
trans-1,2-Dichloroethene	2.0	U	2.0	ug/L		07/28/14 18:53		2
Isopropylbenzene	2.0	U	2.0	ug/L		07/28/14 18:53		2
Methyl acetate	20	U	20	ug/L		07/28/14 18:53		2
Methyl tert-butyl ether	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,2,4-Trichlorobenzene	2.0	U	2.0	ug/L		07/28/14 18:53		2
1,2-Dichlorobenzene	2.8		2.0	ug/L		07/28/14 18:53		2
1,3-Dichlorobenzene	3.1		2.0	ug/L		07/28/14 18:53		2
1,4-Dichlorobenzene	8.5		2.0	ug/L		07/28/14 18:53		2
Trichlorofluoromethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
Dibromochloromethane	2.0	U	2.0	ug/L		07/28/14 18:53		2
Methylcyclohexane	2.0	U	2.0	ug/L		07/28/14 18:53		2

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		63 - 129		07/28/14 18:53	2
4-Bromofluorobenzene (Surr)	78		66 - 120		07/28/14 18:53	2
Toluene-d8 (Surr)	83		74 - 120		07/28/14 18:53	2
Dibromofluoromethane (Surr)	93		75 - 121		07/28/14 18:53	2

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Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-007

Date Collected: 07/24/14 15:55

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-7

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	170	U	170	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Benzene	190		17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Bromodichloromethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Bromoform	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Bromomethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
2-Butanone (MEK)	170	U	170	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Carbon disulfide	83	U	83	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Carbon tetrachloride	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Chlorobenzene	470		17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Chloroethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Chloroform	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Chloromethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,1-Dichloroethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,2-Dichloroethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,1-Dichloroethene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,2-Dichloropropane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
cis-1,3-Dichloropropene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
trans-1,3-Dichloropropene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Ethylbenzene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
2-Hexanone	170	U	170	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Methylene Chloride	83	U	83	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
4-Methyl-2-pentanone (MIBK)	170	U	170	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Styrene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,1,2,2-Tetrachloroethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Tetrachloroethene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Toluene	94		17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Trichloroethene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Vinyl chloride	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Xylenes, Total	33	U	33	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,1,1-Trichloroethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,1,2-Trichloroethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Cyclohexane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,2-Dibromo-3-Chloropropane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,2-Dibromoethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Dichlorodifluoromethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
cis-1,2-Dichloroethene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
trans-1,2-Dichloroethene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Isopropylbenzene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Methyl acetate	170	U	170	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Methyl tert-butyl ether	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,1,2-Trichloro-1,2,2-trifluoroethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,2,4-Trichlorobenzene	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,2-Dichlorobenzene	26		17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,3-Dichlorobenzene	30		17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
1,4-Dichlorobenzene	160		17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Trichlorofluoromethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Dibromochloromethane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67
Methylcyclohexane	17	U	17	ug/L		07/28/14 19:15	07/28/14 19:15	16.67

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		63 - 129		07/28/14 19:15	16.67
4-Bromofluorobenzene (Surr)	80		66 - 120		07/28/14 19:15	16.67
Toluene-d8 (Surr)	82		74 - 120		07/28/14 19:15	16.67
Dibromofluoromethane (Surr)	88		75 - 121		07/28/14 19:15	16.67

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-18224-072414

Date Collected: 07/24/14 00:00

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-8

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	ug/L		07/28/14 19:38		1
Benzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Bromodichloromethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
Bromoform	1.0	U	1.0	ug/L		07/28/14 19:38		1
Bromomethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
2-Butanone (MEK)	10	U	10	ug/L		07/28/14 19:38		1
Carbon disulfide	5.0	U	5.0	ug/L		07/28/14 19:38		1
Carbon tetrachloride	1.0	U	1.0	ug/L		07/28/14 19:38		1
Chlorobenzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Chloroethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
Chloroform	1.0	U	1.0	ug/L		07/28/14 19:38		1
Chloromethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,1-Dichloroethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,2-Dichloroethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,1-Dichloroethene	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,2-Dichloropropane	1.0	U	1.0	ug/L		07/28/14 19:38		1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L		07/28/14 19:38		1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Ethylbenzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
2-Hexanone	10	U	10	ug/L		07/28/14 19:38		1
Methylene Chloride	5.0	U	5.0	ug/L		07/28/14 19:38		1
4-Methyl-2-pentanone (MIBK)	10	U	10	ug/L		07/28/14 19:38		1
Styrene	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
Tetrachloroethene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Toluene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Trichloroethene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Vinyl chloride	1.0	U	1.0	ug/L		07/28/14 19:38		1
Xylenes, Total	2.0	U	2.0	ug/L		07/28/14 19:38		1
1,1,1-Trichloroethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
Cyclohexane	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,2-Dibromoethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
Dichlorodifluoromethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L		07/28/14 19:38		1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Isopropylbenzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Methyl acetate	10	U	10	ug/L		07/28/14 19:38		1
Methyl tert-butyl ether	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,2,4-Trichlorobenzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L		07/28/14 19:38		1
Trichlorofluoromethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
Dibromochloromethane	1.0	U	1.0	ug/L		07/28/14 19:38		1
Methylcyclohexane	1.0	U	1.0	ug/L		07/28/14 19:38		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		63 - 129		07/28/14 19:38	1
4-Bromofluorobenzene (Surr)	79		66 - 120		07/28/14 19:38	1
Toluene-d8 (Surr)	84		74 - 120		07/28/14 19:38	1
Dibromofluoromethane (Surr)	92		75 - 121		07/28/14 19:38	1

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Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-001

Date Collected: 07/24/14 10:30

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,2'-oxybis[1-chloropropane]	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,4,5-Trichlorophenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,4,6-Trichlorophenol	3.9	U	3.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,4-Dichlorophenol	9.7	U	9.7	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,4-Dimethylphenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,4-Dinitrophenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,4-Dinitrotoluene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2,6-Dinitrotoluene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2-Chloronaphthalene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2-Chlorophenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2-Methylnaphthalene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2-Methylphenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
2-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:06		1
2-Nitrophenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
3,3'-Dichlorobenzidine	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
3-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:06		1
4,6-Dinitro-2-methylphenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:06		1
4-Bromophenyl phenyl ether	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
4-Chloro-3-methylphenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
4-Chloroaniline	9.7	U	9.7	ug/L	07/30/14 07:32	08/03/14 19:06		1
4-Chlorophenyl phenyl ether	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
4-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:06		1
4-Nitrophenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:06		1
Acenaphthene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Acenaphthylene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Acetophenone	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Anthracene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Atrazine	2.9	U	2.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Benzaldehyde	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Benzo[a]anthracene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Benzo[a]pyrene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Benzo[b]fluoranthene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Benzo[g,h,i]perylene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Benzo[k]fluoranthene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Bis(2-chloroethoxy)methane	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Bis(2-chloroethyl)ether	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Butyl benzyl phthalate	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Caprolactam	9.7	U	9.7	ug/L	07/30/14 07:32	08/03/14 19:06		1
Carbazole	9.7	U	9.7	ug/L	07/30/14 07:32	08/03/14 19:06		1
Chrysene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Dibenz(a,h)anthracene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Dibenzofuran	3.9	U	3.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Diethyl phthalate	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Dimethyl phthalate	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Di-n-butyl phthalate	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Di-n-octyl phthalate	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Fluoranthene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: GW-18224-072414-SR-001

Lab Sample ID: 240-39898-1

Matrix: Water

Date Collected: 07/24/14 10:30

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Hexachlorobenzene	0.19	U	0.19	ug/L	07/30/14 07:32	08/03/14 19:06		1
Hexachlorobutadiene	0.97	U	0.97	ug/L	07/30/14 07:32	08/03/14 19:06		1
Hexachlorocyclopentadiene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Hexachloroethane	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Isophorone	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Naphthalene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Nitrobenzene	2.9	U	2.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
N-Nitrosodi-n-propylamine	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
N-Nitrosodiphenylamine	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Pentachlorophenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Phenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Phenanthrrene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Pyrene	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
3 & 4 Methylphenol	4.9	U	4.9	ug/L	07/30/14 07:32	08/03/14 19:06		1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	64		29 - 110		07/30/14 07:32	08/03/14 19:06		1
2-Fluorophenol (Surr)	67		15 - 110		07/30/14 07:32	08/03/14 19:06		1
2,4,6-Tribromophenol (Surr)	67		21 - 128		07/30/14 07:32	08/03/14 19:06		1
Nitrobenzene-d5 (Surr)	69		31 - 110		07/30/14 07:32	08/03/14 19:06		1
Phenol-d5 (Surr)	69		10 - 110		07/30/14 07:32	08/03/14 19:06		1
Terphenyl-d14 (Surr)	69		31 - 115		07/30/14 07:32	08/03/14 19:06		1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-002

Lab Sample ID: 240-39898-2

Matrix: Water

Date Collected: 07/24/14 10:30

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,4,5-Trichlorophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,4,6-Trichlorophenol	3.8	U	3.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,4-Dichlorophenol	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,4-Dimethylphenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,4-Dinitrophenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,4-Dinitrotoluene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2,6-Dinitrotoluene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2-Chloronaphthalene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2-Chlorophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2-Methylnaphthalene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2-Methylphenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
2-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 18:44		1
2-Nitrophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
3,3'-Dichlorobenzidine	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
3-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 18:44		1
4,6-Dinitro-2-methylphenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 18:44		1
4-Bromophenyl phenyl ether	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
4-Chloro-3-methylphenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
4-Chloroaniline	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 18:44		1
4-Chlorophenyl phenyl ether	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
4-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 18:44		1
4-Nitrophenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 18:44		1
Acenaphthene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Acenaphthylene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Acetophenone	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Anthracene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Atrazine	2.9	U	2.9	ug/L	07/30/14 07:32	08/03/14 18:44		1
Benzaldehyde	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Benzo[a]anthracene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Benzo[a]pyrene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Benzo[b]fluoranthene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Benzo[g,h,i]perylene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Benzo[k]fluoranthene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Bis(2-chloroethoxy)methane	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Bis(2-chloroethyl)ether	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Butyl benzyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Caprolactam	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 18:44		1
Carbazole	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 18:44		1
Chrysene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Dibenz(a,h)anthracene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 18:44		1
Dibenzofuran	3.8	U	3.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Diethyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Dimethyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Di-n-butyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Di-n-octyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Fluoranthene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: GW-18224-072414-SR-002

Lab Sample ID: 240-39898-2

Date Collected: 07/24/14 10:30

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Hexachlorobenzene	0.19	U	0.19	ug/L	07/30/14 07:32	08/03/14 18:44		1
Hexachlorobutadiene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 18:44		1
Hexachlorocyclopentadiene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Hexachloroethane	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 18:44		1
Isophorone	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Naphthalene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Nitrobenzene	2.9	U	2.9	ug/L	07/30/14 07:32	08/03/14 18:44		1
N-Nitrosodi-n-propylamine	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
N-Nitrosodiphenylamine	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Pentachlorophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Phenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Phenanthrene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 18:44		1
Pyrene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
3 & 4 Methylphenol	18		4.8	ug/L	07/30/14 07:32	08/03/14 18:44		1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	68		29 - 110		07/30/14 07:32	08/03/14 18:44		1
2-Fluorophenol (Surr)	72		15 - 110		07/30/14 07:32	08/03/14 18:44		1
2,4,6-Tribromophenol (Surr)	69		21 - 128		07/30/14 07:32	08/03/14 18:44		1
Nitrobenzene-d5 (Surr)	72		31 - 110		07/30/14 07:32	08/03/14 18:44		1
Phenol-d5 (Surr)	75		10 - 110		07/30/14 07:32	08/03/14 18:44		1
Terphenyl-d14 (Surr)	73		31 - 115		07/30/14 07:32	08/03/14 18:44		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-003

Lab Sample ID: 240-39898-3

Matrix: Water

Date Collected: 07/24/14 12:15

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,4,5-Trichlorophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,4,6-Trichlorophenol	3.8	U	3.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,4-Dichlorophenol	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,4-Dimethylphenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,4-Dinitrophenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,4-Dinitrotoluene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2,6-Dinitrotoluene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2-Chloronaphthalene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2-Chlorophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2-Methylnaphthalene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2-Methylphenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
2-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:29		1
2-Nitrophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
3,3'-Dichlorobenzidine	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
3-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:29		1
4,6-Dinitro-2-methylphenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:29		1
4-Bromophenyl phenyl ether	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
4-Chloro-3-methylphenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
4-Chloroaniline	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 19:29		1
4-Chlorophenyl phenyl ether	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
4-Nitroaniline	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:29		1
4-Nitrophenol	19	U	19	ug/L	07/30/14 07:32	08/03/14 19:29		1
Acenaphthene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Acenaphthylene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Acetophenone	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Anthracene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Atrazine	2.9	U	2.9	ug/L	07/30/14 07:32	08/03/14 19:29		1
Benzaldehyde	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Benzo[a]anthracene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Benzo[a]pyrene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Benzo[b]fluoranthene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Benzo[g,h,i]perylene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Benzo[k]fluoranthene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Bis(2-chloroethoxy)methane	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Bis(2-chloroethyl)ether	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Butyl benzyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Caprolactam	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 19:29		1
Carbazole	9.5	U	9.5	ug/L	07/30/14 07:32	08/03/14 19:29		1
Chrysene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Dibenz(a,h)anthracene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 19:29		1
Dibenzofuran	3.8	U	3.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Diethyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Dimethyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Di-n-butyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Di-n-octyl phthalate	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Fluoranthene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: GW-18224-072414-SR-003

Lab Sample ID: 240-39898-3

Matrix: Water

Date Collected: 07/24/14 12:15
Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Hexachlorobenzene	0.19	U	0.19	ug/L	07/30/14 07:32	08/03/14 19:29		1
Hexachlorobutadiene	0.95	U	0.95	ug/L	07/30/14 07:32	08/03/14 19:29		1
Hexachlorocyclopentadiene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Hexachloroethane	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 19:29		1
Isophorone	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Naphthalene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Nitrobenzene	2.9	U	2.9	ug/L	07/30/14 07:32	08/03/14 19:29		1
N-Nitrosodi-n-propylamine	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
N-Nitrosodiphenylamine	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Pentachlorophenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Phenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Phenanthrrene	1.9	U	1.9	ug/L	07/30/14 07:32	08/03/14 19:29		1
Pyrene	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
3 & 4 Methylphenol	4.8	U	4.8	ug/L	07/30/14 07:32	08/03/14 19:29		1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	60		29 - 110		07/30/14 07:32	08/03/14 19:29		1
2-Fluorophenol (Surr)	63		15 - 110		07/30/14 07:32	08/03/14 19:29		1
2,4,6-Tribromophenol (Surr)	64		21 - 128		07/30/14 07:32	08/03/14 19:29		1
Nitrobenzene-d5 (Surr)	65		31 - 110		07/30/14 07:32	08/03/14 19:29		1
Phenol-d5 (Surr)	67		10 - 110		07/30/14 07:32	08/03/14 19:29		1
Terphenyl-d14 (Surr)	25	X	31 - 115		07/30/14 07:32	08/03/14 19:29		1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-004

Lab Sample ID: 240-39898-4

Matrix: Water

Date Collected: 07/24/14 13:25

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,4,5-Trichlorophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,4,6-Trichlorophenol	3.8	U	3.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,4-Dichlorophenol	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,4-Dimethylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,4-Dinitrophenol	19	U	19	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,4-Dinitrotoluene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2,6-Dinitrotoluene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2-Chloronaphthalene	5.1		4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2-Chlorophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2-Methylnaphthalene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2-Methylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
2-Nitroaniline	19	U	19	ug/L	07/31/14 08:48	08/06/14 13:39		1
2-Nitrophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
3,3'-Dichlorobenzidine	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
3-Nitroaniline	19	U	19	ug/L	07/31/14 08:48	08/06/14 13:39		1
4,6-Dinitro-2-methylphenol	19	U	19	ug/L	07/31/14 08:48	08/06/14 13:39		1
4-Bromophenyl phenyl ether	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
4-Chloro-3-methylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
4-Chloroaniline	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 13:39		1
4-Chlorophenyl phenyl ether	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
4-Nitroaniline	19	U	19	ug/L	07/31/14 08:48	08/06/14 13:39		1
4-Nitrophenol	19	U	19	ug/L	07/31/14 08:48	08/06/14 13:39		1
Acenaphthene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Acenaphthylene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Acetophenone	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Anthracene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Atrazine	2.9	U	2.9	ug/L	07/31/14 08:48	08/06/14 13:39		1
Benzaldehyde	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Benzo[a]anthracene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Benzo[a]pyrene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Benzo[b]fluoranthene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Benzo[g,h,i]perylene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Benzo[k]fluoranthene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Bis(2-chloroethoxy)methane	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Bis(2-chloroethyl)ether	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Butyl benzyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Caprolactam	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 13:39		1
Carbazole	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 13:39		1
Chrysene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Dibenz(a,h)anthracene	1.9	U	1.9	ug/L	07/31/14 08:48	08/06/14 13:39		1
Dibenzofuran	3.8	U	3.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Diethyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Dimethyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Di-n-butyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Di-n-octyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Fluoranthene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: GW-18224-072414-SR-004

Lab Sample ID: 240-39898-4

Matrix: Water

Date Collected: 07/24/14 13:25
Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Hexachlorobenzene	0.19	U	0.19	ug/L	07/31/14 08:48	08/06/14 13:39		1
Hexachlorobutadiene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 13:39		1
Hexachlorocyclopentadiene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Hexachloroethane	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	ug/L	07/31/14 08:48	08/06/14 13:39		1
Isophorone	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Naphthalene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Nitrobenzene	2.9	U	2.9	ug/L	07/31/14 08:48	08/06/14 13:39		1
N-Nitrosodi-n-propylamine	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
N-Nitrosodiphenylamine	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Pentachlorophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Phenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Phenanthren	1.9	U	1.9	ug/L	07/31/14 08:48	08/06/14 13:39		1
Pyrene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
3 & 4 Methylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 13:39		1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	53		29 - 110		07/31/14 08:48	08/06/14 13:39		1
2-Fluorophenol (Surr)	26		15 - 110		07/31/14 08:48	08/06/14 13:39		1
2,4,6-Tribromophenol (Surr)	76		21 - 128		07/31/14 08:48	08/06/14 13:39		1
Nitrobenzene-d5 (Surr)	49		31 - 110		07/31/14 08:48	08/06/14 13:39		1
Phenol-d5 (Surr)	14		10 - 110		07/31/14 08:48	08/06/14 13:39		1
Terphenyl-d14 (Surr)	66		31 - 115		07/31/14 08:48	08/06/14 13:39		1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-005

Lab Sample ID: 240-39898-5

Matrix: Water

Date Collected: 07/24/14 13:25

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,4,5-Trichlorophenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,4,6-Trichlorophenol	4.0	U	4.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,4-Dichlorophenol	9.9	U	9.9	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,4-Dimethylphenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,4-Dinitrophenol	20	U	20	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,4-Dinitrotoluene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2,6-Dinitrotoluene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2-Chloronaphthalene	5.8		5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2-Chlorophenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2-Methylnaphthalene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2-Methylphenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
2-Nitroaniline	20	U	20	ug/L	07/31/14 08:48	08/06/14 13:14		1
2-Nitrophenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
3,3'-Dichlorobenzidine	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
3-Nitroaniline	20	U	20	ug/L	07/31/14 08:48	08/06/14 13:14		1
4,6-Dinitro-2-methylphenol	20	U	20	ug/L	07/31/14 08:48	08/06/14 13:14		1
4-Bromophenyl phenyl ether	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
4-Chloro-3-methylphenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
4-Chloroaniline	9.9	U	9.9	ug/L	07/31/14 08:48	08/06/14 13:14		1
4-Chlorophenyl phenyl ether	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
4-Nitroaniline	20	U	20	ug/L	07/31/14 08:48	08/06/14 13:14		1
4-Nitrophenol	20	U	20	ug/L	07/31/14 08:48	08/06/14 13:14		1
Acenaphthene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Acenaphthylene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Acetophenone	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Anthracene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Atrazine	3.0	U	3.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Benzaldehyde	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Benzo[a]anthracene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Benzo[a]pyrene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Benzo[b]fluoranthene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Benzo[g,h,i]perylene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Benzo[k]fluoranthene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Bis(2-chloroethoxy)methane	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Bis(2-chloroethyl)ether	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Butyl benzyl phthalate	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Caprolactam	9.9	U	9.9	ug/L	07/31/14 08:48	08/06/14 13:14		1
Carbazole	9.9	U	9.9	ug/L	07/31/14 08:48	08/06/14 13:14		1
Chrysene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Dibenz(a,h)anthracene	2.0	U	2.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Dibenzofuran	4.0	U	4.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Diethyl phthalate	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Dimethyl phthalate	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Di-n-butyl phthalate	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Di-n-octyl phthalate	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Fluoranthene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: GW-18224-072414-SR-005

Lab Sample ID: 240-39898-5

Matrix: Water

Date Collected: 07/24/14 13:25
Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Hexachlorobenzene	0.20	U	0.20	ug/L	07/31/14 08:48	08/06/14 13:14		1
Hexachlorobutadiene	0.99	U	0.99	ug/L	07/31/14 08:48	08/06/14 13:14		1
Hexachlorocyclopentadiene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Hexachloroethane	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Isophorone	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Naphthalene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Nitrobenzene	3.0	U	3.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
N-Nitrosodi-n-propylamine	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
N-Nitrosodiphenylamine	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Pentachlorophenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Phenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Phenanthrrene	2.0	U	2.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Pyrene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
3 & 4 Methylphenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 13:14		1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	60		29 - 110		07/31/14 08:48	08/06/14 13:14		1
2-Fluorophenol (Surr)	32		15 - 110		07/31/14 08:48	08/06/14 13:14		1
2,4,6-Tribromophenol (Surr)	87		21 - 128		07/31/14 08:48	08/06/14 13:14		1
Nitrobenzene-d5 (Surr)	56		31 - 110		07/31/14 08:48	08/06/14 13:14		1
Phenol-d5 (Surr)	19		10 - 110		07/31/14 08:48	08/06/14 13:14		1
Terphenyl-d14 (Surr)	73		31 - 115		07/31/14 08:48	08/06/14 13:14		1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-006

Lab Sample ID: 240-39898-6

Matrix: Water

Date Collected: 07/24/14 14:25

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,2'-oxybis[1-chloropropane]	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,4,5-Trichlorophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,4,6-Trichlorophenol	3.8	U	3.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,4-Dichlorophenol	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,4-Dimethylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,4-Dinitrophenol	19	U	19	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,4-Dinitrotoluene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2,6-Dinitrotoluene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2-Chloronaphthalene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2-Chlorophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2-Methylnaphthalene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2-Methylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
2-Nitroaniline	19	U	19	ug/L	07/31/14 08:48	08/06/14 12:48		1
2-Nitrophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
3,3'-Dichlorobenzidine	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
3-Nitroaniline	19	U	19	ug/L	07/31/14 08:48	08/06/14 12:48		1
4,6-Dinitro-2-methylphenol	19	U	19	ug/L	07/31/14 08:48	08/06/14 12:48		1
4-Bromophenyl phenyl ether	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
4-Chloro-3-methylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
4-Chloroaniline	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 12:48		1
4-Chlorophenyl phenyl ether	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
4-Nitroaniline	19	U	19	ug/L	07/31/14 08:48	08/06/14 12:48		1
4-Nitrophenol	19	U	19	ug/L	07/31/14 08:48	08/06/14 12:48		1
Acenaphthene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Acenaphthylene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Acetophenone	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Anthracene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Atrazine	2.9	U	2.9	ug/L	07/31/14 08:48	08/06/14 12:48		1
Benzaldehyde	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Benzo[a]anthracene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Benzo[a]pyrene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Benzo[b]fluoranthene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Benzo[g,h,i]perylene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Benzo[k]fluoranthene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Bis(2-chloroethoxy)methane	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Bis(2-chloroethyl)ether	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Butyl benzyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Caprolactam	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 12:48		1
Carbazole	9.5	U	9.5	ug/L	07/31/14 08:48	08/06/14 12:48		1
Chrysene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Dibenz(a,h)anthracene	1.9	U	1.9	ug/L	07/31/14 08:48	08/06/14 12:48		1
Dibenzofuran	3.8	U	3.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Diethyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Dimethyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Di-n-butyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Di-n-octyl phthalate	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Fluoranthene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: GW-18224-072414-SR-006

Lab Sample ID: 240-39898-6

Matrix: Water

Date Collected: 07/24/14 14:25

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Hexachlorobenzene	0.19	U	0.19	ug/L	07/31/14 08:48	08/06/14 12:48		1
Hexachlorobutadiene	0.95	U	0.95	ug/L	07/31/14 08:48	08/06/14 12:48		1
Hexachlorocyclopentadiene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Hexachloroethane	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Indeno[1,2,3-cd]pyrene	1.9	U	1.9	ug/L	07/31/14 08:48	08/06/14 12:48		1
Isophorone	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Naphthalene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Nitrobenzene	2.9	U	2.9	ug/L	07/31/14 08:48	08/06/14 12:48		1
N-Nitrosodi-n-propylamine	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
N-Nitrosodiphenylamine	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Pentachlorophenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Phenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Phenanthrrene	1.9	U	1.9	ug/L	07/31/14 08:48	08/06/14 12:48		1
Pyrene	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
3 & 4 Methylphenol	4.8	U	4.8	ug/L	07/31/14 08:48	08/06/14 12:48		1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	40		29 - 110		07/31/14 08:48	08/06/14 12:48		1
2-Fluorophenol (Surr)	24		15 - 110		07/31/14 08:48	08/06/14 12:48		1
2,4,6-Tribromophenol (Surr)	67		21 - 128		07/31/14 08:48	08/06/14 12:48		1
Nitrobenzene-d5 (Surr)	39		31 - 110		07/31/14 08:48	08/06/14 12:48		1
Phenol-d5 (Surr)	15		10 - 110		07/31/14 08:48	08/06/14 12:48		1
Terphenyl-d14 (Surr)	59		31 - 115		07/31/14 08:48	08/06/14 12:48		1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: GW-18224-072414-SR-007

Date Collected: 07/24/14 15:55

Date Received: 07/25/14 07:45

Lab Sample ID: 240-39898-7

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,2'-oxybis[1-chloropropane]	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,4,5-Trichlorophenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,4,6-Trichlorophenol	15	U	15	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,4-Dichlorophenol	38	U	38	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,4-Dimethylphenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,4-Dinitrophenol	77	U	77	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,4-Dinitrotoluene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2,6-Dinitrotoluene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2-Chloronaphthalene	32		19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2-Chlorophenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2-Methylnaphthalene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2-Methylphenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
2-Nitroaniline	77	U	77	ug/L	07/31/14 08:48	08/08/14 00:04		4
2-Nitrophenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
3,3'-Dichlorobenzidine	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
3-Nitroaniline	77	U	77	ug/L	07/31/14 08:48	08/08/14 00:04		4
4,6-Dinitro-2-methylphenol	77	U	77	ug/L	07/31/14 08:48	08/08/14 00:04		4
4-Bromophenyl phenyl ether	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
4-Chloro-3-methylphenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
4-Chloroaniline	38	U	38	ug/L	07/31/14 08:48	08/08/14 00:04		4
4-Chlorophenyl phenyl ether	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
4-Nitroaniline	77	U	77	ug/L	07/31/14 08:48	08/08/14 00:04		4
4-Nitrophenol	77	U	77	ug/L	07/31/14 08:48	08/08/14 00:04		4
Acenaphthene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Acenaphthylene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Acetophenone	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Anthracene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Atrazine	12	U	12	ug/L	07/31/14 08:48	08/08/14 00:04		4
Benzaldehyde	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Benzo[a]anthracene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Benzo[a]pyrene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Benzo[b]fluoranthene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Benzo[g,h,i]perylene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Benzo[k]fluoranthene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Bis(2-chloroethoxy)methane	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Bis(2-chloroethyl)ether	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Bis(2-ethylhexyl) phthalate	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Butyl benzyl phthalate	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Caprolactam	38	U	38	ug/L	07/31/14 08:48	08/08/14 00:04		4
Carbazole	38	U	38	ug/L	07/31/14 08:48	08/08/14 00:04		4
Chrysene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Dibenz(a,h)anthracene	7.7	U	7.7	ug/L	07/31/14 08:48	08/08/14 00:04		4
Dibenzofuran	15	U	15	ug/L	07/31/14 08:48	08/08/14 00:04		4
Diethyl phthalate	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Dimethyl phthalate	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Di-n-butyl phthalate	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Di-n-octyl phthalate	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Fluoranthene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: GW-18224-072414-SR-007

Lab Sample ID: 240-39898-7

Matrix: Water

Date Collected: 07/24/14 15:55
Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Hexachlorobenzene	0.77	U	0.77	ug/L	07/31/14 08:48	08/08/14 00:04		4
Hexachlorobutadiene	3.8	U	3.8	ug/L	07/31/14 08:48	08/08/14 00:04		4
Hexachlorocyclopentadiene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Hexachloroethane	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Indeno[1,2,3-cd]pyrene	7.7	U	7.7	ug/L	07/31/14 08:48	08/08/14 00:04		4
Isophorone	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Naphthalene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Nitrobenzene	12	U	12	ug/L	07/31/14 08:48	08/08/14 00:04		4
N-Nitrosodi-n-propylamine	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
N-Nitrosodiphenylamine	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Pentachlorophenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Phenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Phenanthren	7.7	U	7.7	ug/L	07/31/14 08:48	08/08/14 00:04		4
Pyrene	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
3 & 4 Methylphenol	19	U	19	ug/L	07/31/14 08:48	08/08/14 00:04		4
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	35		29 - 110		07/31/14 08:48	08/08/14 00:04		4
2-Fluorophenol (Surr)	25		15 - 110		07/31/14 08:48	08/08/14 00:04		4
2,4,6-Tribromophenol (Surr)	51		21 - 128		07/31/14 08:48	08/08/14 00:04		4
Nitrobenzene-d5 (Surr)	33		31 - 110		07/31/14 08:48	08/08/14 00:04		4
Phenol-d5 (Surr)	16		10 - 110		07/31/14 08:48	08/08/14 00:04		4
Terphenyl-d14 (Surr)	32		31 - 115		07/31/14 08:48	08/08/14 00:04		4

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: GW-18224-072414-SR-001

Lab Sample ID: 240-39898-1

Date Collected: 07/24/14 10:30

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.0	U	5.0	ug/L		07/28/14 09:48	07/29/14 14:46	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 14:46	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: GW-18224-072414-SR-002

Lab Sample ID: 240-39898-2

Date Collected: 07/24/14 10:30

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.0	U	5.0	ug/L		07/28/14 09:48	07/29/14 14:50	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 14:50	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: GW-18224-072414-SR-003

Lab Sample ID: 240-39898-3

Date Collected: 07/24/14 12:15

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	33		5.0	ug/L		07/28/14 09:48	07/29/14 13:35	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 13:35	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: GW-18224-072414-SR-004

Lab Sample ID: 240-39898-4

Date Collected: 07/24/14 13:25

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.0	U	5.0	ug/L		07/28/14 09:48	07/29/14 14:54	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 14:54	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: GW-18224-072414-SR-005

Lab Sample ID: 240-39898-5

Date Collected: 07/24/14 13:25

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.0	U	5.0	ug/L		07/28/14 09:48	07/29/14 14:59	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 14:59	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: GW-18224-072414-SR-006

Lab Sample ID: 240-39898-6

Date Collected: 07/24/14 14:25

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	7.5		5.0	ug/L		07/28/14 09:48	07/29/14 15:03	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 15:03	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: GW-18224-072414-SR-007

Lab Sample ID: 240-39898-7

Date Collected: 07/24/14 15:55

Matrix: Water

Date Received: 07/25/14 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.0	U	5.0	ug/L		07/28/14 09:48	07/29/14 15:07	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 15:07	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

GC/MS VOA

Analysis Batch: 140363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-1	GW-18224-072414-SR-001	Total/NA	Water	8260B	
240-39898-2	GW-18224-072414-SR-002	Total/NA	Water	8260B	
240-39898-3	GW-18224-072414-SR-003	Total/NA	Water	8260B	
240-39898-3 MS	GW-18224-072414-SR-003	Total/NA	Water	8260B	
240-39898-3 MSD	GW-18224-072414-SR-003	Total/NA	Water	8260B	
240-39898-4	GW-18224-072414-SR-004	Total/NA	Water	8260B	
240-39898-5	GW-18224-072414-SR-005	Total/NA	Water	8260B	
240-39898-6	GW-18224-072414-SR-006	Total/NA	Water	8260B	
240-39898-7	GW-18224-072414-SR-007	Total/NA	Water	8260B	
240-39898-8	TB-18224-072414	Total/NA	Water	8260B	
LCS 240-140363/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-140363/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 140692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-1	GW-18224-072414-SR-001	Total/NA	Water	3510C	
240-39898-2	GW-18224-072414-SR-002	Total/NA	Water	3510C	
240-39898-3	GW-18224-072414-SR-003	Total/NA	Water	3510C	
240-39898-3 MS	GW-18224-072414-SR-003	Total/NA	Water	3510C	
240-39898-3 MSD	GW-18224-072414-SR-003	Total/NA	Water	3510C	
LCS 240-140692/21-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-140692/20-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 140902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-4	GW-18224-072414-SR-004	Total/NA	Water	3510C	
240-39898-5	GW-18224-072414-SR-005	Total/NA	Water	3510C	
240-39898-6	GW-18224-072414-SR-006	Total/NA	Water	3510C	
240-39898-7	GW-18224-072414-SR-007	Total/NA	Water	3510C	
LCS 240-140902/19-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-140902/18-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 141241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-1	GW-18224-072414-SR-001	Total/NA	Water	8270C	140692
240-39898-2	GW-18224-072414-SR-002	Total/NA	Water	8270C	140692
240-39898-3	GW-18224-072414-SR-003	Total/NA	Water	8270C	140692
240-39898-3 MS	GW-18224-072414-SR-003	Total/NA	Water	8270C	140692
240-39898-3 MSD	GW-18224-072414-SR-003	Total/NA	Water	8270C	140692
LCS 240-140692/21-A	Lab Control Sample	Total/NA	Water	8270C	140692
MB 240-140692/20-A	Method Blank	Total/NA	Water	8270C	140692

Analysis Batch: 141660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-4	GW-18224-072414-SR-004	Total/NA	Water	8270C	140902
240-39898-5	GW-18224-072414-SR-005	Total/NA	Water	8270C	140902
240-39898-6	GW-18224-072414-SR-006	Total/NA	Water	8270C	140902
LCS 240-140902/19-A	Lab Control Sample	Total/NA	Water	8270C	140902

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

GC/MS Semi VOA (Continued)

Analysis Batch: 141660 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-140902/18-A	Method Blank	Total/NA	Water	8270C	140902

Analysis Batch: 141939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-7	GW-18224-072414-SR-007	Total/NA	Water	8270C	140902

Metals

Prep Batch: 140366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-1	GW-18224-072414-SR-001	Total Recoverable	Water	3005A	10
240-39898-2	GW-18224-072414-SR-002	Total Recoverable	Water	3005A	11
240-39898-3	GW-18224-072414-SR-003	Total Recoverable	Water	3005A	12
240-39898-3 MS	GW-18224-072414-SR-003	Total Recoverable	Water	3005A	13
240-39898-3 MSD	GW-18224-072414-SR-003	Total Recoverable	Water	3005A	14
240-39898-4	GW-18224-072414-SR-004	Total Recoverable	Water	3005A	
240-39898-5	GW-18224-072414-SR-005	Total Recoverable	Water	3005A	
240-39898-6	GW-18224-072414-SR-006	Total Recoverable	Water	3005A	
240-39898-7	GW-18224-072414-SR-007	Total Recoverable	Water	3005A	
LCS 240-140366/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-140366/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 140688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39898-1	GW-18224-072414-SR-001	Total Recoverable	Water	6010B	140366
240-39898-2	GW-18224-072414-SR-002	Total Recoverable	Water	6010B	140366
240-39898-3	GW-18224-072414-SR-003	Total Recoverable	Water	6010B	140366
240-39898-3 MS	GW-18224-072414-SR-003	Total Recoverable	Water	6010B	140366
240-39898-3 MSD	GW-18224-072414-SR-003	Total Recoverable	Water	6010B	140366
240-39898-4	GW-18224-072414-SR-004	Total Recoverable	Water	6010B	140366
240-39898-5	GW-18224-072414-SR-005	Total Recoverable	Water	6010B	140366
240-39898-6	GW-18224-072414-SR-006	Total Recoverable	Water	6010B	140366
240-39898-7	GW-18224-072414-SR-007	Total Recoverable	Water	6010B	140366
LCS 240-140366/2-A	Lab Control Sample	Total Recoverable	Water	6010B	140366
MB 240-140366/1-A	Method Blank	Total Recoverable	Water	6010B	140366

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-140363/6

Matrix: Water

Analysis Batch: 140363

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	ug/L		07/28/14 13:16		1
Benzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Bromodichloromethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
Bromoform	1.0	U	1.0	ug/L		07/28/14 13:16		1
Bromomethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
2-Butanone (MEK)	10	U	10	ug/L		07/28/14 13:16		1
Carbon disulfide	5.0	U	5.0	ug/L		07/28/14 13:16		1
Carbon tetrachloride	1.0	U	1.0	ug/L		07/28/14 13:16		1
Chlorobenzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Chloroethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
Chloroform	1.0	U	1.0	ug/L		07/28/14 13:16		1
Chloromethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,1-Dichloroethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,2-Dichloroethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,1-Dichloroethene	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,2-Dichloropropane	1.0	U	1.0	ug/L		07/28/14 13:16		1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L		07/28/14 13:16		1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Ethylbenzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
2-Hexanone	10	U	10	ug/L		07/28/14 13:16		1
Methylene Chloride	5.0	U	5.0	ug/L		07/28/14 13:16		1
4-Methyl-2-pentanone (MIBK)	10	U	10	ug/L		07/28/14 13:16		1
Styrene	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
Tetrachloroethene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Toluene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Trichloroethene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Vinyl chloride	1.0	U	1.0	ug/L		07/28/14 13:16		1
Xylenes, Total	2.0	U	2.0	ug/L		07/28/14 13:16		1
1,1,1-Trichloroethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
Cyclohexane	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,2-Dibromoethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
Dichlorodifluoromethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
cis-1,2-Dichloroethene	1.0	U	1.0	ug/L		07/28/14 13:16		1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Isopropylbenzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Methyl acetate	10	U	10	ug/L		07/28/14 13:16		1
Methyl tert-butyl ether	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,2,4-Trichlorobenzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L		07/28/14 13:16		1
Trichlorofluoromethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
Dibromochloromethane	1.0	U	1.0	ug/L		07/28/14 13:16		1
Methylcyclohexane	1.0	U	1.0	ug/L		07/28/14 13:16		1

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-140363/6

Matrix: Water

Analysis Batch: 140363

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		63 - 129				07/28/14 13:16	1
4-Bromofluorobenzene (Surr)	79		66 - 120				07/28/14 13:16	1
Toluene-d8 (Surr)	86		74 - 120				07/28/14 13:16	1
Dibromofluoromethane (Surr)	91		75 - 121				07/28/14 13:16	1

Lab Sample ID: LCS 240-140363/4

Matrix: Water

Analysis Batch: 140363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MB	LCS	LCS	Unit	D	%Rec	Limits	%Rec.
				Result					
Acetone	20.0		15.2		ug/L		76	43 - 136	
Benzene	10.0		9.94		ug/L		99	80 - 120	
Bromodichloromethane	10.0		10.2		ug/L		102	72 - 121	
Bromoform	10.0		10.7		ug/L		107	40 - 131	
Bromomethane	10.0		8.39		ug/L		84	11 - 185	
2-Butanone (MEK)	20.0		18.6		ug/L		93	60 - 126	
Carbon disulfide	10.0		10.6		ug/L		106	62 - 142	
Carbon tetrachloride	10.0		11.1		ug/L		111	66 - 128	
Chlorobenzene	10.0		10.1		ug/L		101	80 - 120	
Chloroethane	10.0		9.23		ug/L		92	25 - 153	
Chloroform	10.0		10.1		ug/L		101	79 - 120	
Chloromethane	10.0		8.53		ug/L		85	44 - 126	
1,1-Dichloroethane	10.0		10.2		ug/L		102	80 - 120	
1,2-Dichloroethane	10.0		9.95		ug/L		100	71 - 127	
1,1-Dichloroethene	10.0		9.75		ug/L		97	78 - 131	
1,2-Dichloropropane	10.0		10.2		ug/L		102	80 - 120	
cis-1,3-Dichloropropene	10.0		9.91		ug/L		99	61 - 120	
trans-1,3-Dichloropropene	10.0		10.4		ug/L		104	58 - 120	
Ethylbenzene	10.0		10.4		ug/L		104	80 - 120	
2-Hexanone	20.0		19.7		ug/L		99	55 - 133	
Methylene Chloride	10.0		9.99		ug/L		100	66 - 131	
4-Methyl-2-pentanone (MIBK)	20.0		20.6		ug/L		103	63 - 128	
Styrene	10.0		9.84		ug/L		98	79 - 120	
1,1,2,2-Tetrachloroethane	10.0		9.79		ug/L		98	68 - 120	
Tetrachloroethene	10.0		10.5		ug/L		105	79 - 120	
Toluene	10.0		10.5		ug/L		105	80 - 120	
Trichloroethene	10.0		10.2		ug/L		102	76 - 120	
Vinyl chloride	10.0		9.01		ug/L		90	53 - 127	
Xylenes, Total	20.0		20.4		ug/L		102	80 - 120	
1,1,1-Trichloroethane	10.0		10.9		ug/L		109	74 - 120	
1,1,2-Trichloroethane	10.0		9.84		ug/L		98	80 - 120	
Cyclohexane	10.0		10.7		ug/L		107	54 - 121	
1,2-Dibromo-3-Chloropropane	10.0		11.0		ug/L		110	42 - 136	
1,2-Dibromoethane	10.0		10.1		ug/L		101	79 - 120	
Dichlorodifluoromethane	10.0		7.35		ug/L		74	19 - 129	
cis-1,2-Dichloroethene	10.0		10.2		ug/L		102	80 - 120	
trans-1,2-Dichloroethene	10.0		10.2		ug/L		102	80 - 120	
Isopropylbenzene	10.0		9.63		ug/L		96	75 - 120	

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-140363/4

Matrix: Water

Analysis Batch: 140363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier					
Methyl acetate	50.0	47.7		ug/L		95	58 - 131	
Methyl tert-butyl ether	10.0	10.3		ug/L		103	52 - 144	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.54		ug/L		95	74 - 151	
1,2,4-Trichlorobenzene	10.0	10.1		ug/L		101	48 - 135	
1,2-Dichlorobenzene	10.0	9.98		ug/L		100	80 - 120	
1,3-Dichlorobenzene	10.0	9.96		ug/L		100	80 - 120	
1,4-Dichlorobenzene	10.0	9.82		ug/L		98	80 - 120	
Trichlorofluoromethane	10.0	10.0		ug/L		100	49 - 157	
Dibromochloromethane	10.0	9.57		ug/L		96	64 - 120	
Methylcyclohexane	10.0	10.5		ug/L		105	56 - 127	
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Surrogate	LCS	LCS	Limits	Unit	D	%Rec	Limits	
	%Recovery	Qualifier						
1,2-Dichloroethane-d4 (Surr)	88		63 - 129					
4-Bromofluorobenzene (Surr)	96		66 - 120					
Toluene-d8 (Surr)	96		74 - 120					
Dibromofluoromethane (Surr)	92		75 - 121					

Lab Sample ID: 240-39898-3 MS

Matrix: Water

Analysis Batch: 140363

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Acetone	33	U	66.6	43.6		ug/L		65	33 - 145
Benzene	3.3	U	33.3	31.4		ug/L		94	72 - 121
Bromodichloromethane	3.3	U	33.3	31.7		ug/L		95	67 - 120
Bromoform	3.3	U	33.3	33.7		ug/L		101	32 - 128
Bromomethane	3.3	U	33.3	30.5		ug/L		92	10 - 186
2-Butanone (MEK)	33	U	66.6	55.6		ug/L		83	54 - 129
Carbon disulfide	17	U	33.3	38.8		ug/L		105	57 - 147
Carbon tetrachloride	3.3	U	33.3	32.0		ug/L		96	59 - 129
Chlorobenzene	3.3	U	33.3	32.1		ug/L		96	80 - 120
Chloroethane	100		33.3	137	E	ug/L		98	21 - 165
Chloroform	3.3	U	33.3	31.9		ug/L		96	76 - 120
Chloromethane	3.3	U	33.3	20.0		ug/L		60	33 - 132
1,1-Dichloroethane	3.3	U	33.3	33.6		ug/L		97	79 - 120
1,2-Dichloroethane	3.3	U	33.3	31.7		ug/L		95	68 - 129
1,1-Dichloroethene	3.3	U	33.3	29.4		ug/L		88	74 - 135
1,2-Dichloropropane	3.3	U	33.3	31.9		ug/L		96	78 - 120
cis-1,3-Dichloropropene	3.3	U	33.3	28.5		ug/L		85	51 - 120
trans-1,3-Dichloropropene	3.3	U	33.3	31.2		ug/L		94	46 - 120
Ethylbenzene	3.3	U	33.3	33.1		ug/L		99	75 - 120
2-Hexanone	33	U	66.6	66.3		ug/L		99	47 - 139
Methylene Chloride	17	U	33.3	32.6		ug/L		98	63 - 128
4-Methyl-2-pentanone (MIBK)	33	U	66.6	64.9		ug/L		97	56 - 131
Styrene	3.3	U	33.3	31.4		ug/L		94	71 - 120
1,1,2,2-Tetrachloroethane	3.3	U	33.3	31.1		ug/L		93	63 - 122
Tetrachloroethene	3.3	U	33.3	32.4		ug/L		97	70 - 120

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-39898-3 MS

Client Sample ID: GW-18224-072414-SR-003

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 140363

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Toluene	3.3	U	33.3	32.8		ug/L		99	78 - 120
Trichloroethene	3.3	U	33.3	31.8		ug/L		96	66 - 120
Vinyl chloride	3.3	U	33.3	28.9		ug/L		84	49 - 130
Xylenes, Total	6.7	U	66.6	64.8		ug/L		97	76 - 120
1,1,1-Trichloroethane	3.3	U	33.3	33.0		ug/L		99	68 - 121
1,1,2-Trichloroethane	3.3	U	33.3	31.7		ug/L		95	75 - 120
Cyclohexane	3.3	U	33.3	32.4		ug/L		97	49 - 123
1,2-Dibromo-3-Chloropropane	3.3	U	33.3	33.8		ug/L		101	32 - 139
1,2-Dibromoethane	3.3	U	33.3	32.4		ug/L		97	74 - 120
Dichlorodifluoromethane	3.3	U	33.3	21.7		ug/L		65	17 - 128
cis-1,2-Dichloroethene	3.3	U	33.3	32.7		ug/L		98	70 - 120
trans-1,2-Dichloroethene	3.3	U	33.3	32.3		ug/L		97	80 - 120
Isopropylbenzene	3.3	U	33.3	30.2		ug/L		91	68 - 120
Methyl acetate	33	U	167	147		ug/L		89	47 - 130
Methyl tert-butyl ether	3.3	U	33.3	31.1		ug/L		93	46 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	U	33.3	28.5		ug/L		85	70 - 152
1,2,4-Trichlorobenzene	3.3	U	33.3	31.1		ug/L		93	38 - 138
1,2-Dichlorobenzene	3.3	U	33.3	31.3		ug/L		94	75 - 120
1,3-Dichlorobenzene	3.3	U	33.3	31.2		ug/L		94	73 - 120
1,4-Dichlorobenzene	3.3	U	33.3	30.8		ug/L		92	75 - 120
Trichlorofluoromethane	3.3	U	33.3	24.6		ug/L		74	46 - 157
Dibromochloromethane	3.3	U	33.3	30.5		ug/L		92	56 - 120
Methylcyclohexane	3.3	U	33.3	31.0		ug/L		93	49 - 127
MS MS									
Surrogate	%Recovery	Qualifier			Limits				
1,2-Dichloroethane-d4 (Surr)	79				63 - 129				
4-Bromofluorobenzene (Surr)	88				66 - 120				
Toluene-d8 (Surr)	89				74 - 120				
Dibromofluoromethane (Surr)	84				75 - 121				

Lab Sample ID: 240-39898-3 MSD

Client Sample ID: GW-18224-072414-SR-003

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 140363

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Acetone	33	U	66.6	45.8		ug/L		69	33 - 145
Benzene	3.3	U	33.3	32.2		ug/L		97	72 - 121
Bromodichloromethane	3.3	U	33.3	32.5		ug/L		98	67 - 120
Bromoform	3.3	U	33.3	34.8		ug/L		105	32 - 128
Bromomethane	3.3	U	33.3	31.8		ug/L		96	10 - 186
2-Butanone (MEK)	33	U	66.6	56.6		ug/L		85	54 - 129
Carbon disulfide	17	U	33.3	41.1		ug/L		112	57 - 147
Carbon tetrachloride	3.3	U	33.3	32.7		ug/L		98	59 - 129
Chlorobenzene	3.3	U	33.3	32.2		ug/L		97	80 - 120
Chloroethane	100		33.3	142	E	ug/L		114	21 - 165
Chloroform	3.3	U	33.3	33.1		ug/L		99	76 - 120
Chloromethane	3.3	U	33.3	20.9		ug/L		63	33 - 132

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-39898-3 MSD

Client Sample ID: GW-18224-072414-SR-003

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 140363

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
1,1-Dichloroethane	3.3	U	33.3	34.4		ug/L		99	79 - 120	2	30	
1,2-Dichloroethane	3.3	U	33.3	32.3		ug/L		97	68 - 129	2	30	
1,1-Dichloroethene	3.3	U	33.3	29.9		ug/L		90	74 - 135	1	30	
1,2-Dichloropropane	3.3	U	33.3	33.2		ug/L		100	78 - 120	4	30	
cis-1,3-Dichloropropene	3.3	U	33.3	29.2		ug/L		88	51 - 120	2	30	
trans-1,3-Dichloropropene	3.3	U	33.3	32.0		ug/L		96	46 - 120	2	30	
Ethylbenzene	3.3	U	33.3	33.3		ug/L		100	75 - 120	1	30	
2-Hexanone	33	U	66.6	67.2		ug/L		101	47 - 139	1	30	
Methylene Chloride	17	U	33.3	34.1		ug/L		103	63 - 128	4	30	
4-Methyl-2-pentanone (MIBK)	33	U	66.6	66.6		ug/L		100	56 - 131	3	30	
Styrene	3.3	U	33.3	32.0		ug/L		96	71 - 120	2	30	
1,1,2,2-Tetrachloroethane	3.3	U	33.3	31.1		ug/L		94	63 - 122	0	30	
Tetrachloroethene	3.3	U	33.3	33.1		ug/L		99	70 - 120	2	30	
Toluene	3.3	U	33.3	33.7		ug/L		101	78 - 120	3	30	
Trichloroethene	3.3	U	33.3	33.5		ug/L		100	66 - 120	5	30	
Vinyl chloride	3.3	U	33.3	30.7		ug/L		89	49 - 130	6	30	
Xylenes, Total	6.7	U	66.6	65.2		ug/L		98	76 - 120	1	30	
1,1,1-Trichloroethane	3.3	U	33.3	33.7		ug/L		101	68 - 121	2	30	
1,1,2-Trichloroethane	3.3	U	33.3	32.3		ug/L		97	75 - 120	2	30	
Cyclohexane	3.3	U	33.3	33.1		ug/L		100	49 - 123	2	30	
1,2-Dibromo-3-Chloropropane	3.3	U	33.3	34.7		ug/L		104	32 - 139	3	30	
1,2-Dibromoethane	3.3	U	33.3	32.5		ug/L		98	74 - 120	0	30	
Dichlorodifluoromethane	3.3	U	33.3	22.5		ug/L		68	17 - 128	4	30	
cis-1,2-Dichloroethene	3.3	U	33.3	34.2		ug/L		103	70 - 120	4	30	
trans-1,2-Dichloroethene	3.3	U	33.3	33.4		ug/L		100	80 - 120	3	30	
Isopropylbenzene	3.3	U	33.3	30.0		ug/L		90	68 - 120	1	30	
Methyl acetate	33	U	167	151		ug/L		90	47 - 130	2	30	
Methyl tert-butyl ether	3.3	U	33.3	32.1		ug/L		96	46 - 144	3	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3	U	33.3	29.4		ug/L		88	70 - 152	3	30	
1,2,4-Trichlorobenzene	3.3	U	33.3	32.4		ug/L		97	38 - 138	4	30	
1,2-Dichlorobenzene	3.3	U	33.3	32.4		ug/L		97	75 - 120	4	30	
1,3-Dichlorobenzene	3.3	U	33.3	31.6		ug/L		95	73 - 120	1	30	
1,4-Dichlorobenzene	3.3	U	33.3	31.2		ug/L		94	75 - 120	1	30	
Trichlorofluoromethane	3.3	U	33.3	24.6		ug/L		74	46 - 157	0	30	
Dibromochloromethane	3.3	U	33.3	31.4		ug/L		94	56 - 120	3	30	
Methylcyclohexane	3.3	U	33.3	31.6		ug/L		95	49 - 127	2	30	
Surrogate		MSD	MSD									
		%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)		91		63 - 129								
4-Bromofluorobenzene (Surr)		97		66 - 120								
Toluene-d8 (Surr)		97		74 - 120								
Dibromofluoromethane (Surr)		92		75 - 121								

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-140692/20-A

Matrix: Water

Analysis Batch: 141241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140692

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,4,5-Trichlorophenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,4,6-Trichlorophenol	4.0	U	4.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,4-Dichlorophenol	10	U	10	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,4-Dimethylphenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,4-Dinitrophenol	20	U	20	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,4-Dinitrotoluene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2,6-Dinitrotoluene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2-Chloronaphthalene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2-Chlorophenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2-Methylnaphthalene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2-Methylphenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
2-Nitroaniline	20	U	20	ug/L	07/30/14 07:32	08/03/14 11:37		1
2-Nitrophenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
3,3'-Dichlorobenzidine	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
3-Nitroaniline	20	U	20	ug/L	07/30/14 07:32	08/03/14 11:37		1
4,6-Dinitro-2-methylphenol	20	U	20	ug/L	07/30/14 07:32	08/03/14 11:37		1
4-Bromophenyl phenyl ether	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
4-Chloro-3-methylphenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
4-Chloroaniline	10	U	10	ug/L	07/30/14 07:32	08/03/14 11:37		1
4-Chlorophenyl phenyl ether	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
4-Nitroaniline	20	U	20	ug/L	07/30/14 07:32	08/03/14 11:37		1
4-Nitrophenol	20	U	20	ug/L	07/30/14 07:32	08/03/14 11:37		1
Acenaphthene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Acenaphthylene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Acetophenone	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Anthracene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Atrazine	3.0	U	3.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Benzaldehyde	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Benzo[a]anthracene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Benzo[a]pyrene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Benzo[b]fluoranthene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Benzo[g,h,i]perylene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Benzo[k]fluoranthene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Bis(2-chloroethoxy)methane	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Bis(2-chloroethyl)ether	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Butyl benzyl phthalate	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Caprolactam	10	U	10	ug/L	07/30/14 07:32	08/03/14 11:37		1
Carbazole	10	U	10	ug/L	07/30/14 07:32	08/03/14 11:37		1
Chrysene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Dibenz(a,h)anthracene	2.0	U	2.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Dibenzofuran	4.0	U	4.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Diethyl phthalate	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Dimethyl phthalate	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Di-n-butyl phthalate	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1
Di-n-octyl phthalate	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-140692/20-A

Matrix: Water

Analysis Batch: 141241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140692

Analyte	MB		RL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier				Prepared	Analyzed		
Fluoranthene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Fluorene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Hexachlorobenzene	0.20	U	0.20	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Hexachlorobutadiene	1.0	U	1.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Hexachlorocyclopentadiene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Hexachloroethane	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Isophorone	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Naphthalene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Nitrobenzene	3.0	U	3.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
N-Nitrosodi-n-propylamine	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
N-Nitrosodiphenylamine	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Pentachlorophenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Phenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Phenanthrene	2.0	U	2.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
Pyrene	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	
3 & 4 Methylphenol	5.0	U	5.0	ug/L	07/30/14 07:32	08/03/14 11:37		1	

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	77		29 - 110	07/30/14 07:32	08/03/14 11:37	1
2-Fluorophenol (Surr)	82		15 - 110	07/30/14 07:32	08/03/14 11:37	1
2,4,6-Tribromophenol (Surr)	66		21 - 128	07/30/14 07:32	08/03/14 11:37	1
Nitrobenzene-d5 (Surr)	83		31 - 110	07/30/14 07:32	08/03/14 11:37	1
Phenol-d5 (Surr)	86		10 - 110	07/30/14 07:32	08/03/14 11:37	1
Terphenyl-d14 (Surr)	86		31 - 115	07/30/14 07:32	08/03/14 11:37	1

Lab Sample ID: LCS 240-140692/21-A

Matrix: Water

Analysis Batch: 141241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140692

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1'-Biphenyl	20.0	11.7		ug/L		58	52 - 120
2,2'-oxybis[1-chloropropane]	20.0	13.1		ug/L		65	42 - 120
2,4,5-Trichlorophenol	20.0	11.9		ug/L		59	47 - 120
2,4,6-Trichlorophenol	20.0	11.9		ug/L		59	43 - 120
2,4-Dichlorophenol	20.0	13.0		ug/L		65	46 - 120
2,4-Dimethylphenol	20.0	12.2		ug/L		61	38 - 120
2,4-Dinitrophenol	40.0	12.6	J	ug/L		32	10 - 120
2,4-Dinitrotoluene	20.0	13.9		ug/L		70	52 - 120
2,6-Dinitrotoluene	20.0	13.9		ug/L		69	52 - 120
2-Chloronaphthalene	20.0	11.6		ug/L		58	47 - 120
2-Chlorophenol	20.0	13.5		ug/L		68	43 - 120
2-Methylnaphthalene	20.0	11.7		ug/L		58	52 - 120
2-Methylphenol	20.0	13.5		ug/L		67	38 - 120
2-Nitroaniline	20.0	12.6	J	ug/L		63	48 - 127
2-Nitrophenol	20.0	13.3		ug/L		67	42 - 120
3,3'-Dichlorobenzidine	40.0	25.0		ug/L		63	29 - 120
3-Nitroaniline	20.0	13.5	J	ug/L		68	52 - 120

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-140692/21-A

Matrix: Water

Analysis Batch: 141241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140692

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
4,6-Dinitro-2-methylphenol	40.0	22.1		ug/L	55	33 - 120	
4-Bromophenyl phenyl ether	20.0	12.1		ug/L	61	47 - 120	
4-Chloro-3-methylphenol	20.0	13.1		ug/L	65	45 - 120	
4-Chloroaniline	20.0	13.2		ug/L	66	15 - 120	
4-Chlorophenyl phenyl ether	20.0	12.4		ug/L	62	47 - 120	
4-Nitroaniline	20.0	13.5	J	ug/L	67	48 - 120	
4-Nitrophenol	40.0	25.1		ug/L	63	16 - 120	
Acenaphthene	20.0	12.1		ug/L	61	55 - 120	
Acenaphthylene	20.0	11.7		ug/L	58	55 - 120	
Acetophenone	20.0	14.5		ug/L	72	50 - 120	
Anthracene	20.0	12.4		ug/L	62	56 - 120	
Atrazine	40.0	26.0		ug/L	65	65 - 161	
Benzaldehyde	40.0	29.0		ug/L	73	40 - 122	
Benzo[a]anthracene	20.0	12.8		ug/L	64	46 - 120	
Benzo[a]pyrene	20.0	12.3		ug/L	62	24 - 120	
Benzo[b]fluoranthene	20.0	13.5		ug/L	68	24 - 120	
Benzo[g,h,i]perylene	20.0	13.7		ug/L	68	24 - 126	
Benzo[k]fluoranthene	20.0	13.0		ug/L	65	30 - 120	
Bis(2-chloroethoxy)methane	20.0	13.5		ug/L	67	48 - 120	
Bis(2-chloroethyl)ether	20.0	14.0		ug/L	70	43 - 120	
Bis(2-ethylhexyl) phthalate	20.0	12.0		ug/L	60	21 - 125	
Butyl benzyl phthalate	20.0	13.6		ug/L	68	51 - 120	
Caprolactam	40.0	31.4		ug/L	78	10 - 120	
Carbazole	20.0	13.1		ug/L	65	57 - 120	
Chrysene	20.0	12.8		ug/L	64	49 - 120	
Dibenz(a,h)anthracene	20.0	12.3		ug/L	61	24 - 125	
Dibenzofuran	20.0	12.4		ug/L	62	56 - 120	
Diethyl phthalate	20.0	13.3		ug/L	66	58 - 120	
Dimethyl phthalate	20.0	13.7		ug/L	68	59 - 120	
Di-n-butyl phthalate	20.0	12.8		ug/L	64	57 - 122	
Di-n-octyl phthalate	20.0	11.4		ug/L	57	21 - 122	
Fluoranthene	20.0	12.7		ug/L	63	57 - 120	
Fluorene	20.0	13.0		ug/L	65	56 - 120	
Hexachlorobenzene	20.0	12.0		ug/L	60	52 - 120	
Hexachlorobutadiene	20.0	10.5		ug/L	52	38 - 120	
Hexachlorocyclopentadiene	20.0	2.30	J	ug/L	11	4 - 120	
Hexachloroethane	20.0	10.4		ug/L	52	42 - 120	
Indeno[1,2,3-cd]pyrene	20.0	13.4		ug/L	67	25 - 120	
Isophorone	20.0	12.5		ug/L	62	48 - 123	
Naphthalene	20.0	12.0		ug/L	60	52 - 120	
Nitrobenzene	20.0	13.5		ug/L	68	41 - 120	
N-Nitrosodi-n-propylamine	20.0	13.7		ug/L	69	48 - 123	
N-Nitrosodiphenylamine	40.0	25.7		ug/L	64	51 - 120	
Pentachlorophenol	40.0	17.0		ug/L	42	14 - 120	
Phenol	20.0	13.6		ug/L	68	16 - 120	
Phenanthrene	20.0	12.2		ug/L	61	57 - 120	
Pyrene	20.0	13.0		ug/L	65	50 - 120	
3 & 4 Methylphenol	20.0	13.6		ug/L	68	34 - 120	

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-140692/21-A

Matrix: Water

Analysis Batch: 141241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140692

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	63		29 - 110
2-Fluorophenol (Surr)	69		15 - 110
2,4,6-Tribromophenol (Surr)	62		21 - 128
Nitrobenzene-d5 (Surr)	70		31 - 110
Phenol-d5 (Surr)	74		10 - 110
Terphenyl-d14 (Surr)	68		31 - 115

Lab Sample ID: 240-39898-3 MS

Matrix: Water

Analysis Batch: 141241

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total/NA

Prep Batch: 140692

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,1'-Biphenyl	4.8	U	19.0	10.8		ug/L		57	46 - 110
2,2'-oxybis[1-chloropropane]	4.8	U	19.0	11.9		ug/L		62	26 - 110
2,4,5-Trichlorophenol	4.8	U	19.0	12.3		ug/L		64	53 - 110
2,4,6-Trichlorophenol	3.8	U	19.0	12.1		ug/L		64	50 - 110
2,4-Dichlorophenol	9.5	U	19.0	12.3		ug/L		64	48 - 110
2,4-Dimethylphenol	4.8	U	19.0	13.2		ug/L		69	27 - 110
2,4-Dinitrophenol	19	U	38.1	19	U	ug/L		13	10 - 110
2,4-Dinitrotoluene	4.8	U	19.0	12.2		ug/L		64	56 - 110
2,6-Dinitrotoluene	4.8	U	19.0	12.4		ug/L		65	55 - 110
2-Chloronaphthalene	4.8	U	19.0	11.0		ug/L		57	46 - 110
2-Chlorophenol	4.8	U	19.0	12.4		ug/L		65	35 - 110
2-Methylnaphthalene	4.8	U	19.0	11.4		ug/L		60	50 - 110
2-Methylphenol	4.8	U	19.0	12.7		ug/L		67	31 - 110
2-Nitroaniline	19	U	19.0	19	U	ug/L		63	42 - 110
2-Nitrophenol	4.8	U	19.0	11.2		ug/L		59	47 - 110
3,3'-Dichlorobenzidine	0.95	U	38.1	0.95	U F1	ug/L		0	10 - 110
3-Nitroaniline	19	U	19.0	19	U	ug/L		54	31 - 110
4,6-Dinitro-2-methylphenol	19	U	38.1	19	U	ug/L		14	10 - 110
4-Bromophenyl phenyl ether	4.8	U	19.0	9.24	F1	ug/L		49	51 - 110
4-Chloro-3-methylphenol	4.8	U	19.0	12.6		ug/L		66	42 - 110
4-Chloroaniline	9.5	U	19.0	9.5	U	ug/L		47	20 - 110
4-Chlorophenyl phenyl ether	4.8	U	19.0	10.3		ug/L		54	51 - 110
4-Nitroaniline	19	U	19.0	19	U	ug/L		56	26 - 110
4-Nitrophenol	19	U	38.1	25.8		ug/L		68	10 - 110
Acenaphthene	4.8	U	19.0	11.0		ug/L		58	49 - 110
Acenaphthylene	4.8	U	19.0	9.34		ug/L		49	49 - 110
Acetophenone	4.8	U	19.0	13.0		ug/L		68	45 - 110
Anthracene	4.8	U	19.0	8.63	F1	ug/L		45	50 - 110
Atrazine	2.9	U	38.1	21.2		ug/L		56	55 - 110
Benzaldehyde	4.8	U	38.1	24.7		ug/L		65	24 - 119
Benzo[a]anthracene	0.95	U	19.0	2.64	F1	ug/L		14	34 - 110
Benzo[a]pyrene	0.95	U	19.0	1.96	F1	ug/L		10	17 - 110
Benzo[b]fluoranthene	0.95	U	19.0	2.34	F1	ug/L		12	21 - 110
Benzo[g,h,i]perylene	0.95	U	19.0	0.95	U F1	ug/L		4	18 - 110
Benzo[k]fluoranthene	0.95	U	19.0	2.39	F1	ug/L		13	24 - 110
Bis(2-chloroethoxy)methane	4.8	U	19.0	12.6		ug/L		66	45 - 110

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-39898-3 MS

Matrix: Water

Analysis Batch: 141241

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total/NA

Prep Batch: 140692

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Bis(2-chloroethyl)ether	0.95	U	19.0	12.5		ug/L	66	30 - 110	
Bis(2-ethylhexyl) phthalate	4.8	U	19.0	4.8	U	ug/L	18	10 - 110	
Butyl benzyl phthalate	4.8	U	19.0	8.46	F1	ug/L	44	48 - 110	
Caprolactam	9.5	U	38.1	30.0		ug/L	78	10 - 126	
Carbazole	9.5	U	19.0	11.9		ug/L	63	50 - 110	
Chrysene	0.95	U	19.0	2.66	F1	ug/L	14	36 - 110	
Dibenz(a,h)anthracene	1.9	U	19.0	1.9	U F1	ug/L	7	14 - 110	
Dibenzofuran	3.8	U	19.0	11.2		ug/L	59	51 - 110	
Diethyl phthalate	4.8	U	19.0	12.1		ug/L	64	53 - 110	
Dimethyl phthalate	4.8	U	19.0	12.3		ug/L	65	54 - 110	
Di-n-butyl phthalate	4.8	U	19.0	9.18	F1	ug/L	48	50 - 110	
Di-n-octyl phthalate	4.8	U	19.0	4.8	U	ug/L	19	10 - 110	
Fluoranthene	0.95	U	19.0	5.65	F1	ug/L	30	54 - 110	
Fluorene	4.8	U	19.0	11.4		ug/L	60	51 - 110	
Hexachlorobenzene	0.19	U	19.0	5.71	F1	ug/L	30	49 - 110	
Hexachlorobutadiene	0.95	U	19.0	9.12		ug/L	48	36 - 110	
Hexachlorocyclopentadiene	4.8	U	19.0	4.8	U F1	ug/L	0	4 - 110	
Hexachloroethane	4.8	U	19.0	7.60		ug/L	40	40 - 110	
Indeno[1,2,3-cd]pyrene	1.9	U	19.0	1.9	U F1	ug/L	6	16 - 110	
Isophorone	4.8	U	19.0	11.5		ug/L	60	45 - 110	
Naphthalene	4.8	U	19.0	11.7		ug/L	61	35 - 110	
Nitrobenzene	2.9	U	19.0	12.2		ug/L	64	43 - 110	
N-Nitrosodi-n-propylamine	4.8	U	19.0	12.8		ug/L	67	42 - 110	
N-Nitrosodiphenylamine	4.8	U	38.1	22.5		ug/L	59	41 - 110	
Pentachlorophenol	4.8	U	38.1	21.1		ug/L	55	24 - 110	
Phenol	4.8	U	19.0	12.3		ug/L	65	10 - 125	
Phenanthrene	1.9	U	19.0	9.37	F1	ug/L	49	52 - 110	
Pyrene	4.8	U	19.0	5.65	F1	ug/L	30	50 - 110	
3 & 4 Methylphenol	4.8	U	19.0	12.6		ug/L	66	26 - 110	

MS

MS

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	63		29 - 110
2-Fluorophenol (Surr)	68		15 - 110
2,4,6-Tribromophenol (Surr)	67		21 - 128
Nitrobenzene-d5 (Surr)	70		31 - 110
Phenol-d5 (Surr)	70		10 - 110
Terphenyl-d14 (Surr)	22	X	31 - 115

Lab Sample ID: 240-39898-3 MSD

Matrix: Water

Analysis Batch: 141241

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total/NA

Prep Batch: 140692

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1'-Biphenyl	4.8	U	19.0	11.8		ug/L	62	46 - 110		9	36
2,2'-oxybis[1-chloropropane]	4.8	U	19.0	11.3		ug/L	60	26 - 110		5	63
2,4,5-Trichlorophenol	4.8	U	19.0	13.2		ug/L	70	53 - 110		8	30
2,4,6-Trichlorophenol	3.8	U	19.0	13.1		ug/L	69	50 - 110		8	30
2,4-Dichlorophenol	9.5	U	19.0	12.7		ug/L	67	48 - 110		3	35

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-39898-3 MSD

Matrix: Water

Analysis Batch: 141241

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total/NA

Prep Batch: 140692

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
2,4-Dimethylphenol	4.8	U	19.0	13.1		ug/L	69	27 - 110	1	62	
2,4-Dinitrophenol	19	U	38.1	19	U	ug/L	16	10 - 110	20	99	
2,4-Dinitrotoluene	4.8	U	19.0	13.6		ug/L	71	56 - 110	11	30	
2,6-Dinitrotoluene	4.8	U	19.0	13.5		ug/L	71	55 - 110	8	30	
2-Chloronaphthalene	4.8	U	19.0	11.8		ug/L	62	46 - 110	7	34	
2-Chlorophenol	4.8	U	19.0	11.8		ug/L	62	35 - 110	4	57	
2-Methylnaphthalene	4.8	U	19.0	12.0		ug/L	63	50 - 110	5	37	
2-Methylphenol	4.8	U	19.0	12.2		ug/L	64	31 - 110	4	61	
2-Nitroaniline	19	U	19.0	19	U	ug/L	71	42 - 110	11	30	
2-Nitrophenol	4.8	U	19.0	11.3		ug/L	59	47 - 110	1	44	
3,3'-Dichlorobenzidine	0.95	U	38.1	0.95	U F1	ug/L	2	10 - 110	NC	99	
3-Nitroaniline	19	U	19.0	19	U	ug/L	64	31 - 110	17	47	
4,6-Dinitro-2-methylphenol	19	U	38.1	19	U	ug/L	18	10 - 110	23	92	
4-Bromophenyl phenyl ether	4.8	U	19.0	13.2	F2	ug/L	69	51 - 110	35	30	
4-Chloro-3-methylphenol	4.8	U	19.0	13.4		ug/L	70	42 - 110	6	30	
4-Chloroaniline	9.5	U	19.0	10.0		ug/L	53	20 - 110	12	50	
4-Chlorophenyl phenyl ether	4.8	U	19.0	13.0		ug/L	68	51 - 110	23	30	
4-Nitroaniline	19	U	19.0	19	U	ug/L	65	26 - 110	15	50	
4-Nitrophenol	19	U	38.1	28.5		ug/L	75	10 - 110	10	74	
Acenaphthene	4.8	U	19.0	12.5		ug/L	66	49 - 110	13	30	
Acenaphthylene	4.8	U	19.0	11.7		ug/L	61	49 - 110	22	37	
Acetophenone	4.8	U	19.0	12.5		ug/L	66	45 - 110	4	42	
Anthracene	4.8	U	19.0	12.8	F2	ug/L	67	50 - 110	39	30	
Atrazine	2.9	U	38.1	22.8		ug/L	60	55 - 110	7	30	
Benzaldehyde	4.8	U	38.1	23.3		ug/L	61	24 - 119	6	74	
Benzo[a]anthracene	0.95	U	19.0	12.5	F2	ug/L	66	34 - 110	130	52	
Benzo[a]pyrene	0.95	U	19.0	13.2	F2	ug/L	69	17 - 110	148	68	
Benzo[b]fluoranthene	0.95	U	19.0	15.6	F2	ug/L	82	21 - 110	148	64	
Benzo[g,h,i]perylene	0.95	U	19.0	7.38	F2	ug/L	39	18 - 110	159	87	
Benzo[k]fluoranthene	0.95	U	19.0	14.7	F2	ug/L	77	24 - 110	144	75	
Bis(2-chloroethoxy)methane	4.8	U	19.0	12.1		ug/L	64	45 - 110	4	39	
Bis(2-chloroethyl)ether	0.95	U	19.0	12.0		ug/L	63	30 - 110	4	56	
Bis(2-ethylhexyl) phthalate	4.8	U	19.0	14.4	F2	ug/L	76	10 - 110	125	85	
Butyl benzyl phthalate	4.8	U	19.0	15.0	F2	ug/L	79	48 - 110	56	30	
Caprolactam	9.5	U	38.1	32.8		ug/L	85	10 - 126	9	59	
Carbazole	9.5	U	19.0	13.6		ug/L	72	50 - 110	13	30	
Chrysene	0.95	U	19.0	11.9	F2	ug/L	62	36 - 110	127	49	
Dibenz(a,h)anthracene	1.9	U	19.0	7.78	F2	ug/L	41	14 - 110	145	92	
Dibenzofuran	3.8	U	19.0	12.8		ug/L	67	51 - 110	13	30	
Diethyl phthalate	4.8	U	19.0	13.3		ug/L	70	53 - 110	9	30	
Dimethyl phthalate	4.8	U	19.0	13.4		ug/L	70	54 - 110	8	30	
Di-n-butyl phthalate	4.8	U	19.0	13.5	F2	ug/L	71	50 - 110	38	30	
Di-n-octyl phthalate	4.8	U	19.0	21.6	F1 F2	ug/L	113	10 - 110	143	95	
Fluoranthene	0.95	U	19.0	12.7	F2	ug/L	67	54 - 110	77	30	
Fluorene	4.8	U	19.0	13.4		ug/L	70	51 - 110	16	30	
Hexachlorobenzene	0.19	U	19.0	12.3	F2	ug/L	64	49 - 110	73	30	
Hexachlorobutadiene	0.95	U	19.0	11.9		ug/L	62	36 - 110	26	60	
Hexachlorocyclopentadiene	4.8	U	19.0	4.8	U	ug/L	7	4 - 110	NC	68	

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-39898-3 MSD

Matrix: Water

Analysis Batch: 141241

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total/NA

Prep Batch: 140692

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Hexachloroethane	4.8	U	19.0	9.47		ug/L	50	40 - 110	22	52	
Indeno[1,2,3-cd]pyrene	1.9	U	19.0	8.39	F2	ug/L	44	16 - 110	154	89	
Isophorone	4.8	U	19.0	11.6		ug/L	61	45 - 110	1	37	
Naphthalene	4.8	U	19.0	11.8		ug/L	62	35 - 110	1	58	
Nitrobenzene	2.9	U	19.0	11.7		ug/L	61	43 - 110	4	42	
N-Nitrosodi-n-propylamine	4.8	U	19.0	12.2		ug/L	64	42 - 110	4	39	
N-Nitrosodiphenylamine	4.8	U	38.1	26.5		ug/L	70	41 - 110	17	30	
Pentachlorophenol	4.8	U	38.1	24.9		ug/L	65	24 - 110	16	64	
Phenol	4.8	U	19.0	12.0		ug/L	63	10 - 125	2	62	
Phenanthrene	1.9	U	19.0	12.8	F2	ug/L	67	52 - 110	31	30	
Pyrene	4.8	U	19.0	13.7	F2	ug/L	72	50 - 110	83	30	
3 & 4 Methylphenol	4.8	U	19.0	12.7		ug/L	67	26 - 110	1	57	
Surrogate		MSD	MSD	%Recovery		Qualifier	Limits				
2-Fluorobiphenyl (Surr)		62		29 - 110							
2-Fluorophenol (Surr)		61		15 - 110							
2,4,6-Tribromophenol (Surr)		75		21 - 128							
Nitrobenzene-d5 (Surr)		65		31 - 110							
Phenol-d5 (Surr)		67		10 - 110							
Terphenyl-d14 (Surr)		30	X	31 - 115							

Lab Sample ID: MB 240-140902/18-A

Matrix: Water

Analysis Batch: 141660

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140902

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,1'-Biphenyl	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,2'-oxybis[1-chloropropane]	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,4,5-Trichlorophenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,4,6-Trichlorophenol	4.0	U	4.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,4-Dichlorophenol	10	U	10	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,4-Dimethylphenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,4-Dinitrophenol	20	U	20	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,4-Dinitrotoluene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2,6-Dinitrotoluene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2-Chloronaphthalene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2-Chlorophenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2-Methylnaphthalene	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2-Methylphenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
2-Nitroaniline	20	U	20	ug/L	07/31/14 08:48	08/06/14 10:14		1
2-Nitrophenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
3,3'-Dichlorobenzidine	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
3-Nitroaniline	20	U	20	ug/L	07/31/14 08:48	08/06/14 10:14		1
4,6-Dinitro-2-methylphenol	20	U	20	ug/L	07/31/14 08:48	08/06/14 10:14		1
4-Bromophenyl phenyl ether	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
4-Chloro-3-methylphenol	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1
4-Chloroaniline	10	U	10	ug/L	07/31/14 08:48	08/06/14 10:14		1
4-Chlorophenyl phenyl ether	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14		1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-140902/18-A

Matrix: Water

Analysis Batch: 141660

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140902

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
4-Nitroaniline	20	U	20	U	20	ug/L	07/31/14 08:48	08/06/14 10:14	1	1
4-Nitrophenol	20	U	20	U	20	ug/L	07/31/14 08:48	08/06/14 10:14	1	2
Acenaphthene	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	3
Acenaphthylene	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	4
Acetophenone	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	5
Anthracene	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	6
Atrazine	3.0	U	3.0	U	3.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	7
Benzaldehyde	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	8
Benzo[a]anthracene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	9
Benzo[a]pyrene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	10
Benzo[b]fluoranthene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	11
Benzo[g,h,i]perylene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	12
Benzo[k]fluoranthene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	13
Bis(2-chloroethoxy)methane	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	14
Bis(2-chloroethyl)ether	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	15
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	16
Butyl benzyl phthalate	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	17
Caprolactam	10	U	10	U	10	ug/L	07/31/14 08:48	08/06/14 10:14	1	18
Carbazole	10	U	10	U	10	ug/L	07/31/14 08:48	08/06/14 10:14	1	19
Chrysene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	20
Dibenz(a,h)anthracene	2.0	U	2.0	U	2.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	21
Dibenzofuran	4.0	U	4.0	U	4.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	22
Diethyl phthalate	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	23
Dimethyl phthalate	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	24
Di-n-butyl phthalate	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	25
Di-n-octyl phthalate	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	26
Fluoranthene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	27
Fluorene	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	28
Hexachlorobenzene	0.20	U	0.20	U	0.20	ug/L	07/31/14 08:48	08/06/14 10:14	1	29
Hexachlorobutadiene	1.0	U	1.0	U	1.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	30
Hexachlorocyclopentadiene	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	31
Hexachloroethane	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	32
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	U	2.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	33
Isophorone	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	34
Naphthalene	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	35
Nitrobenzene	3.0	U	3.0	U	3.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	36
N-Nitrosodi-n-propylamine	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	37
N-Nitrosodiphenylamine	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	38
Pentachlorophenol	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	39
Phenol	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	40
Phenanthrene	2.0	U	2.0	U	2.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	41
Pyrene	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	42
3 & 4 Methylphenol	5.0	U	5.0	U	5.0	ug/L	07/31/14 08:48	08/06/14 10:14	1	43

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2-Fluorobiphenyl (Surr)	70		70		29 - 110	07/31/14 08:48	08/06/14 10:14	1
2-Fluorophenol (Surr)	54		54		15 - 110	07/31/14 08:48	08/06/14 10:14	1
2,4,6-Tribromophenol (Surr)	81		81		21 - 128	07/31/14 08:48	08/06/14 10:14	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-140902/18-A

Matrix: Water

Analysis Batch: 141660

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140902

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	67		31 - 110	07/31/14 08:48	08/06/14 10:14	1
Phenol-d5 (Surr)	41		10 - 110	07/31/14 08:48	08/06/14 10:14	1
Terphenyl-d14 (Surr)	79		31 - 115	07/31/14 08:48	08/06/14 10:14	1

Lab Sample ID: LCS 240-140902/19-A

Matrix: Water

Analysis Batch: 141660

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140902

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1'-Biphenyl	20.0	13.3		ug/L	66	52 - 120	
2,2'-oxybis[1-chloropropane]	20.0	12.9		ug/L	65	42 - 120	
2,4,5-Trichlorophenol	20.0	14.3		ug/L	72	47 - 120	
2,4,6-Trichlorophenol	20.0	14.2		ug/L	71	43 - 120	
2,4-Dichlorophenol	20.0	13.7		ug/L	69	46 - 120	
2,4-Dimethylphenol	20.0	12.5		ug/L	63	38 - 120	
2,4-Dinitrophenol	40.0	32.0		ug/L	80	10 - 120	
2,4-Dinitrotoluene	20.0	15.7		ug/L	79	52 - 120	
2,6-Dinitrotoluene	20.0	15.2		ug/L	76	52 - 120	
2-Chloronaphthalene	20.0	13.0		ug/L	65	47 - 120	
2-Chlorophenol	20.0	13.3		ug/L	66	43 - 120	
2-Methylnaphthalene	20.0	13.1		ug/L	66	52 - 120	
2-Methylphenol	20.0	12.7		ug/L	63	38 - 120	
2-Nitroaniline	20.0	15.2 J		ug/L	76	48 - 127	
2-Nitrophenol	20.0	14.4		ug/L	72	42 - 120	
3,3'-Dichlorobenzidine	40.0	28.2		ug/L	71	29 - 120	
3-Nitroaniline	20.0	15.2 J		ug/L	76	52 - 120	
4,6-Dinitro-2-methylphenol	40.0	30.5		ug/L	76	33 - 120	
4-Bromophenyl phenyl ether	20.0	16.2		ug/L	81	47 - 120	
4-Chloro-3-methylphenol	20.0	14.4		ug/L	72	45 - 120	
4-Chloroaniline	20.0	7.52 J		ug/L	38	15 - 120	
4-Chlorophenyl phenyl ether	20.0	14.5		ug/L	73	47 - 120	
4-Nitroaniline	20.0	14.5 J		ug/L	72	48 - 120	
4-Nitrophenol	40.0	20.3		ug/L	51	16 - 120	
Acenaphthene	20.0	13.3		ug/L	67	55 - 120	
Acenaphthylene	20.0	13.3		ug/L	67	55 - 120	
Acetophenone	20.0	13.9		ug/L	69	50 - 120	
Anthracene	20.0	14.5		ug/L	72	56 - 120	
Atrazine	40.0	34.7		ug/L	87	65 - 161	
Benzaldehyde	40.0	26.3		ug/L	66	40 - 122	
Benzo[a]anthracene	20.0	14.8		ug/L	74	46 - 120	
Benzo[a]pyrene	20.0	15.2		ug/L	76	24 - 120	
Benzo[b]fluoranthene	20.0	15.7		ug/L	78	24 - 120	
Benzo[g,h,i]perylene	20.0	14.4		ug/L	72	24 - 126	
Benzo[k]fluoranthene	20.0	14.9		ug/L	74	30 - 120	
Bis(2-chloroethoxy)methane	20.0	14.2		ug/L	71	48 - 120	
Bis(2-chloroethyl)ether	20.0	13.3		ug/L	67	43 - 120	
Bis(2-ethylhexyl) phthalate	20.0	16.1		ug/L	80	21 - 125	
Butyl benzyl phthalate	20.0	15.9		ug/L	80	51 - 120	

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-140902/19-A

Matrix: Water

Analysis Batch: 141660

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140902

Analyte	Spike	LCS		Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Caprolactam	40.0	10.1		ug/L	25	10 - 120	
Carbazole	20.0	15.3		ug/L	76	57 - 120	
Chrysene	20.0	14.0		ug/L	70	49 - 120	
Dibenz(a,h)anthracene	20.0	15.0		ug/L	75	24 - 125	
Dibenzofuran	20.0	13.8		ug/L	69	56 - 120	
Diethyl phthalate	20.0	14.6		ug/L	73	58 - 120	
Dimethyl phthalate	20.0	15.0		ug/L	75	59 - 120	
Di-n-butyl phthalate	20.0	16.8		ug/L	84	57 - 122	
Di-n-octyl phthalate	20.0	16.2		ug/L	81	21 - 122	
Fluoranthene	20.0	16.1		ug/L	81	57 - 120	
Fluorene	20.0	14.7		ug/L	73	56 - 120	
Hexachlorobenzene	20.0	15.8		ug/L	79	52 - 120	
Hexachlorobutadiene	20.0	12.1		ug/L	60	38 - 120	
Hexachlorocyclopentadiene	20.0	8.59		ug/L	43	4 - 120	
Hexachloroethane	20.0	11.5		ug/L	57	42 - 120	
Indeno[1,2,3-cd]pyrene	20.0	15.0		ug/L	75	25 - 120	
Isophorone	20.0	13.8		ug/L	69	48 - 123	
Naphthalene	20.0	12.7		ug/L	64	52 - 120	
Nitrobenzene	20.0	14.1		ug/L	71	41 - 120	
N-Nitrosodi-n-propylamine	20.0	13.9		ug/L	70	48 - 123	
N-Nitrosodiphenylamine	40.0	32.3		ug/L	81	51 - 120	
Pentachlorophenol	40.0	24.3		ug/L	61	14 - 120	
Phenol	20.0	8.76		ug/L	44	16 - 120	
Phenanthrene	20.0	14.6		ug/L	73	57 - 120	
Pyrene	20.0	14.9		ug/L	74	50 - 120	
3 & 4 Methylphenol	20.0	12.1		ug/L	60	34 - 120	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	69		29 - 110
2-Fluorophenol (Surr)	59		15 - 110
2,4,6-Tribromophenol (Surr)	83		21 - 128
Nitrobenzene-d5 (Surr)	75		31 - 110
Phenol-d5 (Surr)	45		10 - 110
Terphenyl-d14 (Surr)	79		31 - 115

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-140366/1-A

Matrix: Water

Analysis Batch: 140688

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 140366

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chromium	5.0	U	5.0	ug/L		07/28/14 09:48	07/29/14 13:27	1
Lead	3.0	U	3.0	ug/L		07/28/14 09:48	07/29/14 13:27	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-140366/2-A

Matrix: Water

Analysis Batch: 140688

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 140366

Analyte		Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Added	Result	Qualifier				
Chromium		200	207		ug/L		104	80 - 120
Lead		500	501		ug/L		100	80 - 120

Lab Sample ID: 240-39898-3 MS

Matrix: Water

Analysis Batch: 140688

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total Recoverable

Prep Batch: 140366

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chromium	33		200	219		ug/L		93	75 - 125
Lead	3.0	U	500	463		ug/L		92	75 - 125

Lab Sample ID: 240-39898-3 MSD

Matrix: Water

Analysis Batch: 140688

Client Sample ID: GW-18224-072414-SR-003

Prep Type: Total Recoverable

Prep Batch: 140366

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD
	Result	Qualifier	Added	Result	Qualifier					
Chromium	33		200	236		ug/L		102	75 - 125	8
Lead	3.0	U	500	504		ug/L		100	75 - 125	9

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-129)	BFB (66-120)	TOL (74-120)	DBFM (75-121)
240-39898-1	GW-18224-072414-SR-001	97	80	87	97
240-39898-2	GW-18224-072414-SR-002	100	80	89	97
240-39898-3	GW-18224-072414-SR-003	96	78	85	94
240-39898-3 MS	GW-18224-072414-SR-003	79	88	89	84
240-39898-3 MSD	GW-18224-072414-SR-003	91	97	97	92
240-39898-4	GW-18224-072414-SR-004	100	87	87	99
240-39898-5	GW-18224-072414-SR-005	95	79	83	93
240-39898-6	GW-18224-072414-SR-006	93	78	83	93
240-39898-7	GW-18224-072414-SR-007	91	80	82	88
240-39898-8	TB-18224-072414	92	79	84	92
LCS 240-140363/4	Lab Control Sample	88	96	96	92
MB 240-140363/6	Method Blank	94	79	86	91

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-39898-1	GW-18224-072414-SR-001	64	67	67	69	69	69
240-39898-2	GW-18224-072414-SR-002	68	72	69	72	75	73
240-39898-3	GW-18224-072414-SR-003	60	63	64	65	67	25 X
240-39898-3 MS	GW-18224-072414-SR-003	63	68	67	70	70	22 X
240-39898-3 MSD	GW-18224-072414-SR-003	62	61	75	65	67	30 X
240-39898-4	GW-18224-072414-SR-004	53	26	76	49	14	66
240-39898-5	GW-18224-072414-SR-005	60	32	87	56	19	73
240-39898-6	GW-18224-072414-SR-006	40	24	67	39	15	59
240-39898-7	GW-18224-072414-SR-007	35	25	51	33	16	32
LCS 240-140692/21-A	Lab Control Sample	63	69	62	70	74	68
LCS 240-140902/19-A	Lab Control Sample	69	59	83	75	45	79
MB 240-140692/20-A	Method Blank	77	82	66	83	86	86
MB 240-140902/18-A	Method Blank	70	54	81	67	41	79

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

TestAmerica Canton

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Client Sample ID: GW-18224-072414-SR-001

Lab Sample ID: 240-39898-1

Matrix: Water

Date Collected: 07/24/14 10:30

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		250	140363	07/28/14 17:22	LRW	TAL CAN
Total/NA	Prep	3510C			140692	07/30/14 07:32	CSC	TAL CAN
Total/NA	Analysis	8270C		1	141241	08/03/14 19:06	TMH	TAL CAN
Total Recoverable	Prep	3005A			140366	07/28/14 09:48	ADS	TAL CAN
Total Recoverable	Analysis	6010B		1	140688	07/29/14 14:46	KLC	TAL CAN

Client Sample ID: GW-18224-072414-SR-002

Lab Sample ID: 240-39898-2

Matrix: Water

Date Collected: 07/24/14 10:30

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	140363	07/28/14 17:44	LRW	TAL CAN
Total/NA	Prep	3510C			140692	07/30/14 07:32	CSC	TAL CAN
Total/NA	Analysis	8270C		1	141241	08/03/14 18:44	TMH	TAL CAN
Total Recoverable	Prep	3005A			140366	07/28/14 09:48	ADS	TAL CAN
Total Recoverable	Analysis	6010B		1	140688	07/29/14 14:50	KLC	TAL CAN

Client Sample ID: GW-18224-072414-SR-003

Lab Sample ID: 240-39898-3

Matrix: Water

Date Collected: 07/24/14 12:15

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		3.33	140363	07/28/14 14:45	LRW	TAL CAN
Total/NA	Prep	3510C			140692	07/30/14 07:32	CSC	TAL CAN
Total/NA	Analysis	8270C		1	141241	08/03/14 19:29	TMH	TAL CAN
Total Recoverable	Prep	3005A			140366	07/28/14 09:48	ADS	TAL CAN
Total Recoverable	Analysis	6010B		1	140688	07/29/14 13:35	KLC	TAL CAN

Client Sample ID: GW-18224-072414-SR-004

Lab Sample ID: 240-39898-4

Matrix: Water

Date Collected: 07/24/14 13:25

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		8	140363	07/28/14 18:07	LRW	TAL CAN
Total/NA	Prep	3510C			140902	07/31/14 08:48	SDE	TAL CAN
Total/NA	Analysis	8270C		1	141660	08/06/14 13:39	JMG	TAL CAN
Total Recoverable	Prep	3005A			140366	07/28/14 09:48	ADS	TAL CAN
Total Recoverable	Analysis	6010B		1	140688	07/29/14 14:54	KLC	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Client Sample ID: GW-18224-072414-SR-005

Lab Sample ID: 240-39898-5

Matrix: Water

Date Collected: 07/24/14 13:25

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		6.67	140363	07/28/14 18:30	LRW	TAL CAN
Total/NA	Prep	3510C			140902	07/31/14 08:48	SDE	TAL CAN
Total/NA	Analysis	8270C		1	141660	08/06/14 13:14	JMG	TAL CAN
Total Recoverable	Prep	3005A			140366	07/28/14 09:48	ADS	TAL CAN
Total Recoverable	Analysis	6010B		1	140688	07/29/14 14:59	KLC	TAL CAN

Client Sample ID: GW-18224-072414-SR-006

Lab Sample ID: 240-39898-6

Matrix: Water

Date Collected: 07/24/14 14:25

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	140363	07/28/14 18:53	LRW	TAL CAN
Total/NA	Prep	3510C			140902	07/31/14 08:48	SDE	TAL CAN
Total/NA	Analysis	8270C		1	141660	08/06/14 12:48	JMG	TAL CAN
Total Recoverable	Prep	3005A			140366	07/28/14 09:48	ADS	TAL CAN
Total Recoverable	Analysis	6010B		1	140688	07/29/14 15:03	KLC	TAL CAN

Client Sample ID: GW-18224-072414-SR-007

Lab Sample ID: 240-39898-7

Matrix: Water

Date Collected: 07/24/14 15:55

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		16.67	140363	07/28/14 19:15	LRW	TAL CAN
Total/NA	Prep	3510C			140902	07/31/14 08:48	SDE	TAL CAN
Total/NA	Analysis	8270C		4	141939	08/08/14 00:04	JMG	TAL CAN
Total Recoverable	Prep	3005A			140366	07/28/14 09:48	ADS	TAL CAN
Total Recoverable	Analysis	6010B		1	140688	07/29/14 15:07	KLC	TAL CAN

Client Sample ID: TB-18224-072414

Lab Sample ID: 240-39898-8

Matrix: Water

Date Collected: 07/24/14 00:00

Date Received: 07/25/14 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	140363	07/28/14 19:38	LRW	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TestAmerica Canton

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 18224-007, Arkema Halowax Area

TestAmerica Job ID: 240-39898-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15
Connecticut	State Program	1	PH-0590	12-31-14
Florida	NELAP	4	E87225	06-30-15
Georgia	State Program	4	N/A	06-30-15
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	01-31-15
Kentucky (UST)	State Program	4	58	06-30-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-14
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15
New York	NELAP	2	10975	03-31-15
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14 *
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-14 *

* Certification renewal pending - certification considered valid.

TestAmerica Canton



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-39898 Chain of Custody



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO.: PL-12796

PAGE 1 OF 1

(See Reverse Side for Instructions)

24, 4, 2, 2, 8

Project No/Phase/Task Code: 018224-03			Laboratory Name: Test America								Lab Location: N. Canton, OH		SSOW ID: 18224-003										
Project Name: Arkema Habaux Area			Lab Contact: D. Heckler								Lab Quote No:		Cooler No:										
Project Location: Wyandotte, MI			SAMPLE TYPE								CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)										
Chemistry Contact: R. Steicher			Matrix Code (see back of COC)										Carrier: FedEx										
Sampler(s): D. Confield / S. Roper			Grab (G) or Comp (C)										Airbill No:										
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yy)		TIME (hh:mm)		Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	Encores 35g, 1x25g	Other:	Total Containers/Sample	MS/MSD Request	Date Shipped: 7/24/14	COMMENTS/ SPECIAL INSTRUCTIONS: MS/MSD					
1	GW-18224-072414-5R-001		07/24/14		10:30		WG	G	2	3	-	-	-	X	6	TCL VCR	Pb, Cr						
2	-002		10:30		WG		G	2	3	1	-	-	-	1	6	TCL VCR	-						
3	-003		12:15		WG		G	4	9	2	-	-	-	15	6	TCL VCR	-						
4	-004		13:25		WG		G	2	3	1	-	-	-	6	6	TCL VCR	-						
5	-005		13:25		WG		G	2	3	1	-	-	-	6	6	TCL VCR	-						
6	-006		14:25		WG		G	2	3	1	-	-	-	6	6	TCL VCR	-						
7	-007		15:55		WG		G	2	3	1	-	-	-	6	6	TCL VCR	-						
8	TB-18224-072414													1	1	X							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
TAT Required in business days (use separate COCs for different TATs):												Total Number of Containers:		Notes/ Special Requirements:									
<input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> 1 Week <input checked="" type="checkbox"/> 2 Week <input type="checkbox"/> Other:												52		All Samples in Cooler must be on COC 3 coolers total									
RELINQUISHED BY:												COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME					
1.	<i>D. Steicher</i>	CRA	7/24/14	17:00	1. <i>RH</i>				TA	7-25-14	745												
2.					2.																		
3.					3.																		

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution:

WHITE – Fully Executed Copy (CRA)

YELLOW – Receiving Laboratory Copy

PINK – Shipper

GOLDENROD -- Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 39898

Client CRA Site Name _____ Cooler unpacked by: 

Cooler Received on 7-25-14 Opened on 7-25-14

FedEx: 1st Grd EXP UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +2 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 4 (CF -2 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 5 (CF +0 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 8 (CF +0 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C

 See Multiple
Cooler Form
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes 
 -Were custody seals on the outside of the cooler(s) signed & dated?
 No
 NA
 No
3. Shippers' packing slip attached to the cooler(s)?  Yes 
4. Did custody papers accompany the sample(s)?  Yes 
5. Were the custody papers relinquished & signed in the appropriate place?  Yes 
6. Did all bottles arrive in good condition (Unbroken)?  Yes 
7. Could all bottle labels be reconciled with the COC?  Yes 
8. Were correct bottle(s) used for the test(s) indicated?  Yes 
9. Sufficient quantity received to perform indicated analyses?  Yes 
10. Were sample(s) at the correct pH upon receipt?  Yes  NA pH Strip Lot# HC302587
11. Were VOAs on the COC?  Yes 
12. Were air bubbles >6 mm in any VOA vials?  Yes  NA
13. Was a trip blank present in the cooler(s)?  Yes 

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: 

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

**TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility**

Login #: 39848

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>	<u>Preservative</u>	<u>pH</u>	<u>Added (mls)</u>	<u>Lot #</u>
GW-18224-072414-SR-001	240-39898-D-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
GW-18224-072414-SR-002	240-39898-D-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
GW-18224-072414-SR-003	240-39898-J-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
GW-18224-072414-SR-003	240-39898-K-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
GW-18224-072414-SR-004	240-39898-D-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
GW-18224-072414-SR-005	240-39898-D-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
GW-18224-072414-SR-006	240-39898-D-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
GW-18224-072414-SR-007	240-39898-D-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____